



FACULTY OF HUMANITIES AND SOCIAL SCIENCES
School of Education Communication and Language Sciences

Job Satisfaction of University Academics in China

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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February, 2009

Declaration

I declare that all the material in this thesis which is not my own has, to the best of my ability, been acknowledged. The material in the thesis has not been submitted previously by the author for a degree at this or any other university.

Signed:

Acknowledgements

Firstly, I would like to take this opportunity to thank my parents for their endless love, encouragement and support. Without whose support it would never have seen the light of the day. I would like to thank my boyfriend Ran, who have always believe in me, encouraged me and helped me when I was in difficulty. Thanks also go to my younger brother Chao.

I am deeply grateful to my supervisors – Dr Kate Wall and Professor Ann Briggs of University of Newcastle- for their help and encouragement, and invaluable advice and discussions throughout my PhD period. And also thanks to my previous supervisor Dr David Mercer who guided me through the beginning research stage.

I would like to thank academics in Universities in DaLian who freely gave of their time to allow this research to come to fruition. I am also grateful to my former classmates - Xiaohui Wang, Junfu Li, Ning Zhao, Hongliang Pu, Bo Zhao, Jingjing Wang, Yanxia Sun, Ying Wang – for their help to collect the data. Sincere thanks also goes to my friends – Ming Liu, Daniel – for their advice and encouragement.

Abstract

Higher education systems throughout the world are experiencing a difficult process of change that is impacting significantly on employees. This has meant that university academics have to do complex work in an increasingly demanding environment. The issue of academic job satisfaction is of growing concern because it has significant quality implications for universities. Many research studies of job satisfaction have looked at varied applications to the Western context, however, in the Chinese context, it is still relatively unclear what accounts for academic job satisfaction. This study can fill a gap in the previous job satisfaction literature in China and explores the idea that the influences upon this factor are culture related.

This study investigates job satisfaction among university academics in China. It adopts a mixed methods approach which combined qualitative and quantitative data collection and analysis techniques. The qualitative data were collected by semi-structured interviews with a total of fourteen academics in North University. Specifically, the interviewees were asked to consider the factors impact on their job satisfaction. NVivo 7 was used to categorize the qualitative data for analysis on the basis of the work related factors. The quantitative data were collected by questionnaires. A sample of 204 academics from six universities in Northeast China was sampled. The quantitative data were analyzed based on the factor analysis of principal components to derive groups of variables. Simple percentages, means and t-test were then used for data analysis.

The findings revealed that academics' job satisfaction has strong relationships with their perceptions to a number of factors. Although there were no significant differences with respect to personal characteristics relating to overall job satisfaction, age had significant influence on job satisfaction with self-esteem and self-efficacy. Work related factors that prompted academic job satisfaction related to work groups, work itself and to intrinsic factors such as self-esteem, self-efficacy and self-actualisation, while the factors that contributed to dissatisfaction were mostly extrinsic factors related to pay and promotion. These findings are discussed in the light of motivation theories, higher education changes and cultural context. Cultural factors, such as power-concentrated, group-oriented, holistic relationships, have significant influences on Chinese academics' perceptions of their work. As these effects are particularly relevant to China, not all Western models of job satisfaction can be applied to the Chinese context. This thesis concludes that intrinsic factors tend to be dominant in Chinese university settings and are more likely to evoke university academics' job satisfaction rather than extrinsic ones, academics are satisfied with overall levels of job satisfaction, although not with pay and promotion.

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CHAPTER 1 - Introduction and Overview

1.1 Introduction

This study investigates job satisfaction among university academics in China. Job satisfaction is concerned with the affective reaction of individuals to their work. Many researchers are interested in this topic because they believe that it is an important feature in understanding organisations and individuals within them. Within the microcosm of higher education, the academics' influence can be profound and consequently it is of interest to all concerned that they obtain satisfaction from the work situation. Many research investigations of job satisfaction have looked at varied applications to the Western context; however, in the Chinese context, it is still relatively unclear how academics feel about their work and what accounts for their feelings. Therefore, it is important to replicate this research in China to test the generalisability of Western organisational theories. This study explores the idea that the influences upon this factor are culture related. This thesis will acquire a greater understanding of university academics' attitudes to their work and identify the factors that impact on their job satisfaction.

This chapter establishes the background to the study. It starts with a general overview of the Chinese education system, then reviews the changes in higher education (HE) and pinpoints the implications for university academics. All the specific issues of reform and development of Chinese higher education are considered as the affection to job

satisfaction of university academics. During this chapter, the research questions are identified and the structure of the study is outlined.

1.2 Background to the Study

1.2.1 Geographical and Historical Background of China

The People's Republic of China is located in eastern Asia. It is bounded by the Pacific Ocean in the east and occupies an area of 9.6 million square kilometers. According to the National Bureau of Statistics in 2006, China's population reached 1.3 billion (excluding that of Hong Kong, Macao and Taiwan) or about one fifth of the world population. China has a very dense population, with approximately 135 people per square kilometer and includes 56 officially recognized ethnic cultures, value systems and languages. The Han group dominates the national economy, politics and culture, and the national language is Putonghua (the common speech) or Mandarin. China is a multi-religious country. Buddhism, Taoism, Islam, Catholicism and Protestantism, and various other religions exert different influence on various ethnic groups (BBC, 2007; ChinaToday.com, 2006).

China's economy was noted as playing a major role in the global economy in 2006 and this has increased over time. During the last quarter century, it has changed from a centrally planned system that was largely closed to international trade to a more market-oriented economy that has a rapidly growing private sector. China's Gross Domestic Product (GDP) has increased more than tenfold since 1978 (GDP - per capita (PPP) \$7,600, 2006) with this restructuring of the economy. However, the official

registered unemployment rate is still 4.2% in urban areas in 2005 and 130 million people are registered as living below international poverty lines. In this case, education arguably plays a key role in enhancing the skills and knowledge of the labour force to improve the quality of the whole nation and promote the socialist modernisation. The Fifteenth National Congress of the Communist Party of China mapped out a plan for implementing the strategies for invigorating China through science and education. Therefore, an effective education system is seen as essential for the welfare development of society, the demand of the socialist modernization and a move to accommodate the needs of the times (BBC, 2007; ChinaToday.com, 2006).

1.2.2 Formal Education System in China

The education system in China is one of the largest in the world with a total number of 2273 higher education institutions (HEIs) which serves more than 23 million students (MoE, 2005). In the past two decades, this large education system has been restructured to meet the needs of economic and social development and the requirement of qualified human resources. In China, formal education is divided into basic education and higher education. This thesis will focus centrally on higher education, but an overview of the formal education system may be of interest, which is shown as Table 1.1.

Table 1.1: Formal education system in China

1	Primary school		Primary school		9 year compulsory education
2					
3					
4					
5					
6					
7	Junior middle school		Junior middle school		
8					
9					
10	Senior high school		Specialized school	Vocational school	Technical school
11					
12					
13	2 year college	University	Higher education		
14					
15	3 year college				
16	4 year college				
17	Masters				
18					
19					
20	Ph.D.				
21					
22					

In the lead up to higher education, students are required to pass through a system of basic education which comprises primary and secondary education. Nine years of combined primary and junior secondary education is compulsory by law. Senior secondary education includes regular senior high school education and specialized / vocational / technical secondary education. Graduates from junior middle schools can continue their education in an academic senior high school and also can enter a specialized, vocational or technical school (EDU, 2004).

Higher education in China is characterized by a variety of types, which encompass all branches of teaching and learning, combining both degree-education and non-degree education and integrating college, undergraduate and graduate education. The undergraduate level comprises two and three year junior colleges, four-year colleges, and universities offering programmes in both academic and vocational subjects. The graduate level programmes leading to a masters or Ph.D. degree are offered in many colleges and

universities (EDU, 2004).

1.2.3 Chinese Higher Education Background

Within this overview of the Chinese formal education system, higher education will be paid special attention as this is the context for this research. In the following section, the Chinese higher education background will be presented.

1.2.3.1 National Background

Since 1978, the Chinese government has shifted its main focus from political revolution to economic construction. After a decade of Cultural Revolution in which all educational activities ground to a halt, universities reopened in 1977, which marked a historical and meaningful event for the whole nation (Mohrman, 2003). In 1979, Premier Deng Xiaoping took charge of the Chinese education system recognising that it lagged behind the west. He decided to restart university examinations and proposed education reform as the first step towards social change in China. Since then, Chinese higher education has made great improvement as a basis of the economic development.

In the 1980s, with continued social changes and the open-up policy (Kang, 2004), educational reform and development made significant progress. Education development became a principal part of these social changes. China moved towards a market economy and many reforms took place in society: higher education was no exception.

Moreover, the Chinese government's goal of creating a well-off society in an all-around way required both qualitative and quantitative changes to higher education (Mohrman, 2003). A large number of high-quality workers were also required for the socialist economic construction. This is one of the most important factors influencing the development of the education system.

1.2.3.2 International Background

The implementation of the open-up policy meant China had to change its attitude to Western culture from rejection and opposition to study and cooperation (Kang, 2004). Premier Deng Xiaoping announced that Chinese education should have three faces: facing the world, facing the modernisation and facing the future. In leading this notion, the education system got more chances to learn from the Western world.

This meant that the university system became more global, communicating and interacting with Western universities. Arguably no university can develop in isolation. In the global environment, Chinese universities had to learn from systems in other nations and be aware of their own strengths and weaknesses. This helped them to seek the most effective approaches to planning, operation and management. Since 1978, the development of education has entered a new era encouraging movement towards studying abroad, increasing the numbers of foreign students studying in China and expanding academic communication and interaction.

International communication and cooperation has brought us with beneficial reference, impelled education reform and development in China and enhanced the mutual understanding and friendship between China and other countries (Kang, 2004, p. 144).

In addition, the increasing internationalisation has also been reflected in higher education development in China. With entrance to the World Trade Organisation (WTO), the vibrant economy has appealed to an increasing number of foreign investors. In this situation, more people are needed to speak foreign languages and understand international business and economics. Thus, the development of higher education is necessary. Not only does higher education play a significant role in the government's investment in society, but the products of higher education - highly qualified people - are essential for continuing national development (Mohrman, 2003).

1.2.3.3 Project 211

Project 211 was launched in China in the late 1990s aimed at strengthening about 100 universities and key disciplinary areas as a national priority for the 21st Century. The implementation of Project 211 was an important measure taken by the Chinese government in its effort to facilitate the development of higher education in the context of the country's advancement in social and economic fields (MoE, 2001b). The objective of this programme was to train a high-level professional labor force to adapt to the social and economic development and enhance China's overall capacity and international competitiveness.

All the 211 programme universities have received higher levels of funding, support, status and recognition from the state, local governments and other higher education institutions. The special funds allocated by the central and provincial governments were mainly used

to meet the needs of development in the national key disciplinary areas and the public service system of higher education, and readjust the infrastructure improvement of a small number of universities to upgrade the overall quality. After several years of effort, 211 programme universities now form the elite of Chinese higher education and provide a wider range of programmes and courses, particularly at postgraduate level, construct new campuses and upgrade facilities. Most of the 211 programme universities have been seen to significantly enhance the quality of teaching, academic research, management and administration systems. In addition, a group of key universities and disciplinary areas have approached or reached the advanced international level (MoE, 2001c).

Non 211 programme universities and institutions have arguably had to work harder on improving their quality and efficiency of education and have had to compete for more funds, support, recognition and facilities. However, the massive supply of students competing for the limited places in higher education has helped them easily obtain students and get some levels of support from the government and state owned enterprises. In recent years, many non 211 programme universities and institutions have been merged to develop larger universities which could therefore be more competitive. However, the less competent and smaller institutions have needed to make great efforts to enhance their quality to survive in the competitive environment, otherwise they are being either abolished or forced to amalgamate (Willis, 2000). The implementation of the 211 Project forced universities and institutions to improve their standards in overall quality to train high-level professional labour forces to meet the demand of the social and economic

development.

1.2.4 Recent Changes in Chinese Higher Education

Willis (2000) has described the current education system in China as expansive (more courses), flexible (increased decentralization), internationalized (cooperation with foreign universities), and competitive (competition for students and fees, post graduates and state funding and support; state managed university ranking installed). In the last two decades, massive changes have been taking place in the higher education system, which can be illustrated by the following factors. All the changes have significant implications for university academics, which will be presented later in this chapter.

1.2.4.1 Expansion

Transition from elite to mass higher education is an international phenomenon. Many industrialised countries such as the UK and Australia have experienced rapid development in higher education since the Second World War (Pretorius and Xue, 2003). In recent years, the Chinese government has been expanding higher education rapidly to meet the need of a more highly trained work force for the knowledge society and develop the human resources. In 1998, the Ministry of Education developed a Plan for Revitalizing Education in the 21st century. One of the most important objectives was to enlarge the scale of higher education (MoE, 2001b). It was planned that the gross enrollment rate of higher education institutions should have reached 15% by the year 2010. It is notable that China had already achieved that number eight years ahead of

schedule by 2002. As Table 1.2 shows, by 2006, the net enrollment rate of higher education had reached 23%. The numbers of students had increased by more than three times from 1998 to 2006, perhaps the fastest growth rates in higher education anywhere in the world.

Table 1.2: The Increasing Rate of Higher Education Institute Enrolments, 1998–2006

Year	Enrolment number(10,000)	Rate of growth (%)	Net enrolment rate (%)
1998	116	7.5	9.8
1999	167.8	47	10.5
2000	220.6	25	12.5
2001	268.3	17	13.3
2002	320.5	19.46	15
2003	381.83	19	17
2004	447.34	17.05	19
2005	504.46	12.7	21
2006	546.05	8.24	23

Sources: *Zhongguo jiaoyu shiye tongji nianjian 2000*, (*Yearbook of China's Educational Statistics*) (Beijing: Renmin jiaoyu chubanshe, 2001); *Surveys of the Educational Reform and Development in China* (Ministry of Education, 2001c, 2002, 2003, 2004a, 2005 and 2006).

The enlargement of scale however has also resulted in many problems. The rapid expansion has made it difficult for universities to sustain quality of provision, such as the quality of students and the number of qualified faculty and staff. The limited resources have also become a big problem, such as teaching and learning facilities, library resources, and students' accommodation. As a result, academics are under increased pressure in various aspects of their job. The implication for academics will be dealt with in detail later in this chapter.

1.2.4.2 Decentralization

As China's economic system has shifted from a centralized to a market model, the central government has also abandoned the central planning system in higher education to delegate more power to local governments and HEIs. In this two-level education

provision system, the HEIs were given enough flexibility and autonomy to provide education according to the perceived needs of the society and to improve the university efficiency. The reasons for the decentralization of higher education were:

- To enable local HEIs to develop programmes more relevant to their local situation;
- To change from government funding as the sole input to plural sources of funding;
- To encourage local HEIs to be more innovative and creative in the development of curriculum and courses; and
- To develop closer links with local industry and businesses to meet their needs in the market economy (Jiang, 1995; MoE, 2001b).

With the management reform of higher education, the relationship between government, universities, and society has been gradually smoothed (MoE, 2001b). The role of government has transferred from control to guidance and the HEIs received more autonomy to provide education for society according to the laws.

1.2.4.3 Marketization

Marketization of higher education has become the dominant trend all over the world (Zhou, 2005). With the adoption of the socialist market economy system, HEIs in China are increasingly affected by market forces. It is argued that the emergence of private education institutions, partnership with non-government sectors, new market driven teaching programmes as well as new funding patterns, clearly suggest that China's education has been going through this process of marketization. The university is now

affected by students' decisions about where to attend and withdraw and which subject to take; employers' decisions about which subjects and programmes to favour and what ability to need for employment; and foundations' and entrepreneurs' decisions about which institutions and programmes to contribute to (Johnstone, 2002). There are many features in this marketized education.

One is the emergence of private education in China. The introduction of the socialist market economy created a favourable environment for the emergence of private education (Mok, 1996). The government actively encouraged and supported social organisation and individuals to establish private school according to law and regulations. Marketization and privatization are closely linked together, and will be discussed in detail in the next part.

Another important feature is that universities established partnerships with non-government sectors. On one hand, this strategy aimed to solve the supply problem with the enlargement of scale in higher education. On the other, in the process of marketization, universities sought financial support from outside higher education. More and more universities have developed closer links with businesses and industries and signed contracts with entrepreneurs for logistics in universities.

Furthermore, with the entrance to the WTO and increased globalization, universities have been required to offer more courses related to English, computer sciences, business and

economics to meet the needs of employers. Due to decentralization and the new funding patterns for higher education, more courses have been provided for profit purposes.

Finally, marketization is most apparent in the new funding patterns for higher education. The financial situation in universities has changed from a solely government funded system to multiple funding channels. University funding has been diversified by the opportunity to seek other sources for annual operating funds, such as financial support from local government, tuition fees, private companies, joint ventures and grants particularly from overseas and commercial activities (Willis, 2000).

1.2.4.4 Privatization

Decentralization and marketization have resulted in the emergence of plural ownership for higher education in China. This reform was identified by many researchers as ‘privatization’ of Chinese education.

This term describes more of a tendency or direction than an absolute state, and applies to the several different dimensions of ownership, mission, source of revenue, extent of governmental regulation, and norms of management (Johnstone, 2002, p. 5).

In the last decade, HEIs were public and funded solely by the central or local government. Now, more than one thousand universities are privately owned. In 2003, the Ministry of Education issued a document to officially support the establishment of this kind of institution (Zhong, 2003). This new type of institution is considered to be an innovative mode and effective approach to speed up the development of the higher education sector. There are several different kinds of privately owned institution.

First, the independent institutions owned and managed by individuals, named as private schools and universities. These institutions are not owned by or under the direct control of government officials. They are permitted and regulated by the government and run by social organisations and individuals with non-public budgets. They are able to establish their own curriculum and its underlying principles and have their own management system. This new type of institution helps meet the demand of society and contributes to the stated national goal of enrollment expansion.

Second, there are semi private campuses, named as sub-colleges of public universities. There is an increasing trend for state universities to develop their own semi private or independent institutions or even campus (Willis, 2000). On one hand, these institutions behave as an independent teaching unit and have their own management system. On the other hand, they are closely linked with the state university system and are named as one of its colleges. All the faculty teams are from the state university. This kind of college shares the prestige, teaching and administration experiences with the main university (Kang, 2004).

Third are joint venture institutions. The state universities and foreign universities cooperate and sign a joint venture agreement and establish a semi private or independent campus. The new institution shares the resources and advantages of two universities and countries. Nowadays, these joint venture institutions particularly target courses focusing on business and management.

1.2.4.5 Amalgamations

In the past, different Chinese universities have had different systems of financial support and administration; because of this, their quality control standards have also differed (Kang, 2004).

The main target of the reform was to change the obsolete administration system in which universities were owned and run by a variety of central industry ministries, in order to establish a fairly decentralized, two-tiered management system. In this system, the administrative power could be shared by both central and local authorities (Chen, 2002, p. 1).

Another objective of amalgamation is to build Chinese universities into world-class institutions. It is concerned with the aim for all top universities to be comprehensive and include a wide range of disciplines and be big enough to have large enrollments levels.

There are two kinds of amalgamation. One is to merge closely located small institutions sharing the same or similar disciplines, but administered by different governmental departments. This is done to unify the administration system, solve the problem of segmentation and increase the effectiveness of the universities. The other is to form many larger and stronger universities by merging leading universities with relatively narrow disciplines. This is done to advance several universities to the top tier of universities worldwide (Chen, 2002). As a result of reform, a number of big and strong universities have emerged in the Chinese higher education with comprehensive fields of disciplines. However, a number of debates have been raised about this amalgamation: ‘How could the different universities be really unified as a whole university, and how could such huge universities be properly administered?’ (Kang, 2004, p. 146). Another criticism is that

about 2000 higher education institutions can not meet the needs of a country with 1.3 billion people, so to reduce the number of institutions is not necessary. Other opponents have argued that amalgamation is full of risk and it is pointed out that mergers do not always lead to high quality (Chen, 2002).

1.2.4.6 Curriculum Reforms

Along with the structural changes in higher education, curriculum renewal has been put forward to promote quality-oriented education. In June 1999, the Third National Working Meeting on Education was held by the Chinese Communist Party (CCP) and the State Council. Concerning the global trend and current situation of Chinese education, it is pointed out that the education concepts, institution, structure, teaching and learning content and methodology are out of date. It has been argued that the development and reform of education need to be sped up in a comprehensive way to improve the quality of the whole nation and enhance its innovative capacity (Zhong, 2003). With the guidance of this concept, there have been changes to curricula in HEIs.

Universities have tended to offer less specialized, more comprehensive programmes, which link the terms of ‘broad study’, ‘quality-oriented’ and ‘broad and cultivated’ with the concern for students’ character. One scholar of higher education described the situation as three interlocking trends:

- *More freedom for students to choose the curriculum they preferred;*
- *Basic subjects (general education) to widen students’ knowledge;*
- *A reduction in the number of credits for graduation (Mohrman, 2003, p. 38).*

To ensure the all-round development of students, universities provided a broad range of

knowledge from which students can develop their major fields. Universities also advocated the integrated model of sciences and humanities in the curriculum which required science students to take a number of courses in humanities and social sciences, and vice versa (Kang, 2004). Furthermore, several universities permitted students to enroll in double majors as well as sub-majors. In this case, the broad knowledge of graduates can help them adapt to the requirement of jobs easily.

In addition, with the globalization and advancement of IT, universities put more weight on the teaching of foreign languages and computer sciences. From the implementation of the open door policy in 1978, English began to be a subject tested as part of the national entrance exams. By the mid 1990s, it became one of three key subjects in the entrance exams (Zhong, 2003). Nowadays, universities are concerned to offer more courses taught in English and a national project to reform the teaching of English is on the way. It proposed to move from an emphasis on grammar to a priority on oral and written communication (Mohrman, 2003).

Moreover, more programmes were developed to train students in practical skills and get them involved in research settings much earlier than before. In the process of marketization, it is more competitive for graduates to find jobs on their own and practical abilities are arguably more welcomed by employers. To meet the needs of society, universities strove to provide better experimental facilities and provide more opportunities to involve students in research, with the implication of directing them early

toward careers.

1.2.4.7 Pedagogy Innovation

Traditionally, classroom activities within higher education were generally teacher-centered. The academics presented the knowledge and the students accepted passively: they were not actively involved. With the change of society, this kind of teaching method was argued to no longer meet the demand of rapid development. The university administrators needed to rethink the mode of teaching and learning and there was a motivation to develop critical thinking and problem solving skills. Universities made efforts to minimize rote learning and create more discussion and seminar classes to involve students actively in the learning process. Universities were also seen to put emphasis on cognition, research experience, analysis and problem solving skills.

For some time information technology has been singled out as a major force in HE (Bull *et al.* 1994). There has been a move to reward the preparation and delivery of traditional lecture courses being replaced by the more extensive preparation of a flexible or distance learning module. Nowadays, most universities have promoted methodological innovation by the use of multimedia, up-to-date teaching content, distance learning, more research based teaching and increased student activities (Mohrman, 2003).

1.3 Implications for University Academics

The effect of change has required academics to be responsive to growing emphases on

performance and professional standards, diverse student needs and expectations, high pressures on time and workload, a competitive research environment, declining public funding, and increased administrative and fiscal accountability (Houston *et al.*, 2006). Therefore, it could be argued that not only is the academic workplace changing rapidly, but also academics are facing difficulties in managing the pressures of their work.

1.3.1 Resource Implication of Higher Education Expansion

As mentioned above (see section 1.2.4.1), in accordance with the development of education, the Chinese government made the decision to enlarge the scale of higher education at the turn of the century. Owing to this reform, the shortage of qualified faculty and staff became a big problem for universities. It has been difficult for universities to appoint enough qualified academics in a relatively short space of time. Although some universities offered a large number of internet courses, information technology is not the solution for all universities. The state goal from the MoE for student/teacher ratios is between 13/1 and 15/1.

At Fudan university, the student/faculty ratio is 9/1, similar to other key universities but not bad when compared to provincial or local institutions where the ratio can be as high as 40/1 (Mohrman, 2003, p. 53).

The overall ratio of 16.85/1 in 2005 (shown in Table 1.3) is more or less acceptable; however, many universities had faculty distribution problems. A number of universities had insufficient academics in most popular subjects alongside excess capacity in other departments (Mohrman, 2003). In this situation, great pressure has been put upon some academics to offer more courses and teach large classes and on others to be dismissed by the university.

Table 1.3: Student/teacher Ratio of Regular Higher Education, 1998–2005

Year	Number of total staff (10,000)	Number of teachers (10,000)	Student/teacher ratio
1998	102.96	40.72	11.6/1
1999	106.51	42.57	13.4/1
2000	111.28	46.28	16.3/1
2001	121.44	53.19	18.22/1
2002	130.36	61.84	19.0/1
2003	145.26	72.47	17.0/1
2004	161.07	85.84	17.0/1
2005	174.21	96.58	16.85/1

Sources: *Statistical Information on Educational Development (Ministry of Education, 1998-2005)*.
<http://www.moe.gov.cn/edoas/website18/level2.jsp?tablename=1068>

1.3.2 Employment Conditions for University Academics

In the past, university academics were employed for life, no matter how well they performed in their work. In order to be promoted to professor, they had to be evaluated by the faculty, and once qualified; they could then be employed as a full professor (Kang, 2004). With the development of the economy, to improve the overall quality of university academics and enhance university effectiveness, a new system of employment based on contracts has been adopted to cover the whole university faculty. Periodic evaluation of academics' performance was conducted and the conditions of employment for academics could be changed according to their achievement in teaching and research. This has meant that vacancies in teaching positions could be filled through competitive application. In this case, high university effectiveness and high quality faculties could be achieved by dismissing unqualified and diverting redundant staff to other jobs. The channel of new academics' recruitment expanded to include graduates from non-academic training universities who were qualified to be academics, so as to broaden the structural composition of the contingent of academics (MoE, 2001b). However, this new employment system brought great pressure for university academics. They needed to

work hard to improve their work and meet the various kinds of evaluation and assessment.

1.3.3 Pressures for University Academics

As far as Chinese university academics are concerned, it could be argued that great changes may bring significant increase in stress. First of all, with the expansion of enrolment in higher education, university academics have been required to teach more courses and larger classes. The intensification of workload has resulted in feelings of constant weariness due to working long hours and an ambivalence towards the occupation (Zhou, 2005). Also it has been hard to find a balance between teaching and research. As Romainville (1996) stated, universities are the only organisations focused on dual core functions of knowledge creation and knowledge transmission through the process of research and teaching.

In the curriculum reform, academics have also experienced great personal pressure. As universities offer more comprehensive programmes and students have more choice in the courses they take, the enrollment numbers can indicate popular and effective academics. How to attract students to their courses has become a great pressure upon academics since the basic funding is tied to enrollments. It is also suggested that an academic with no students enrolled might be fired. This kind of stress for academics never existed under the prescribed curriculum of the past (Mohrman, 2003).

In addition, with the changes in pedagogy, academics have been required to change their traditional teaching methods and learn new ways of working. However, the trend of large classes diminishes the interaction between academics and students. The opportunity to meet the academics is reduced for students in branch campuses, since academics do not remain there for informal interaction with students. Great challenges are raised for academics with new styles of teaching and learning. In the past, university academics received great respect from society. Students were reluctant to ask questions and seldom challenged their points of view. The new flexible and student-centered methods bring great challenges to academics, since they are required to support students in being more creative and innovative (Mohrman, 2003). Further challenges have come from advances in information technology. Academics have been encouraged to use different media to incorporate PowerPoint and other technologies to move beyond the ‘blackboard stage’. With limited opportunities for academic training and professional development, they have needed to learn this new way of teaching after working hours (Mohrman, 2003).

Furthermore, with the concept of building world class universities, many have decided to catch up with Western universities by enlarging publication in international journals. This has brought significant stresses to university academics. In the process of decentralization and marketization, universities have needed to respond to societal pressures and market forces demanding applied research. Research is needed to meet the requirement of local government, business leaders, non-governmental organisations, elementary and secondary schools because they provide significant financial support (Mohrman, 2003). Research

productivity is also essential for academics' promotion.

Finally, university academics, as elite knowledge creators, may pursue a sense of self-actualisation, but they have to work hard to satisfy the demand of increased assessment, administration and accountability (Zhou, 2005). Moreover, academics assigned to administrative roles need to take on significant tasks in the department which could keep them away from teaching and research. In this case, how can they love their job and how can they be creative in work? It could be argued that this in turn generates anxiety, stress and guilt for academics in terms of less effectiveness and responsiveness. The effect of such declining conditions led to growing concerns over job satisfaction for academics in China.

1.4 Research Purpose and Research Questions

The purpose of the present study is to acquire a greater understanding of university academics' attitudes to their work and to highlight the major factors that contribute to their job satisfaction in China. As demonstrated above, higher education changes in China have impacted significantly on university academics. This has meant that they have had to do complex work in an increasingly demanding environment. The issue of academic job satisfaction is of growing concern because it has significant quality implications for universities through academics' dissatisfaction, lowered productivity and lowered emotional and physical health. Moreover, due to these problems, academics may consider resigning if there are alternative employment opportunities to go to or early retirement.

Belasco and Alutto (1972) noted that ‘it is apparent that if a given educational organisation is to sustain itself over time it must be concerned with both the attraction and retention of teachers and the faithful performance of their interrelated role activities’ (p.54).

Although much of the research on job satisfaction has looked at varied applications to the Western context, in the Chinese context, it is still relatively unclear how academics feel about their work and what accounts for this. It is, therefore, important to replicate job satisfaction research in China, one of the emerging economies in South East Asia, in order to test the generalisability of Western organisational theories. This study can fulfill a gap in the previous job satisfaction literature in China. This study explores the idea that the influences upon this factor are culture related. All these considerations provide an indispensable justification for studies of job satisfaction of university academics in China.

As a result of this concern, the following question emerges as the focus of this research:

What factors impact on the job satisfaction of university academics in China?

The following sub-questions need to be answered in order to answer this main question:

- ✧ Does job satisfaction have significant correlations with personal characteristic variables?
- ✧ What intrinsic factors affect academic job satisfaction?
- ✧ What extrinsic factors affect academic job satisfaction?
- ✧ What are consequences of academic job satisfaction?

- ✧ To what extent can Western models of job satisfaction be applied to the Chinese context?

1.5 Structure of the Study

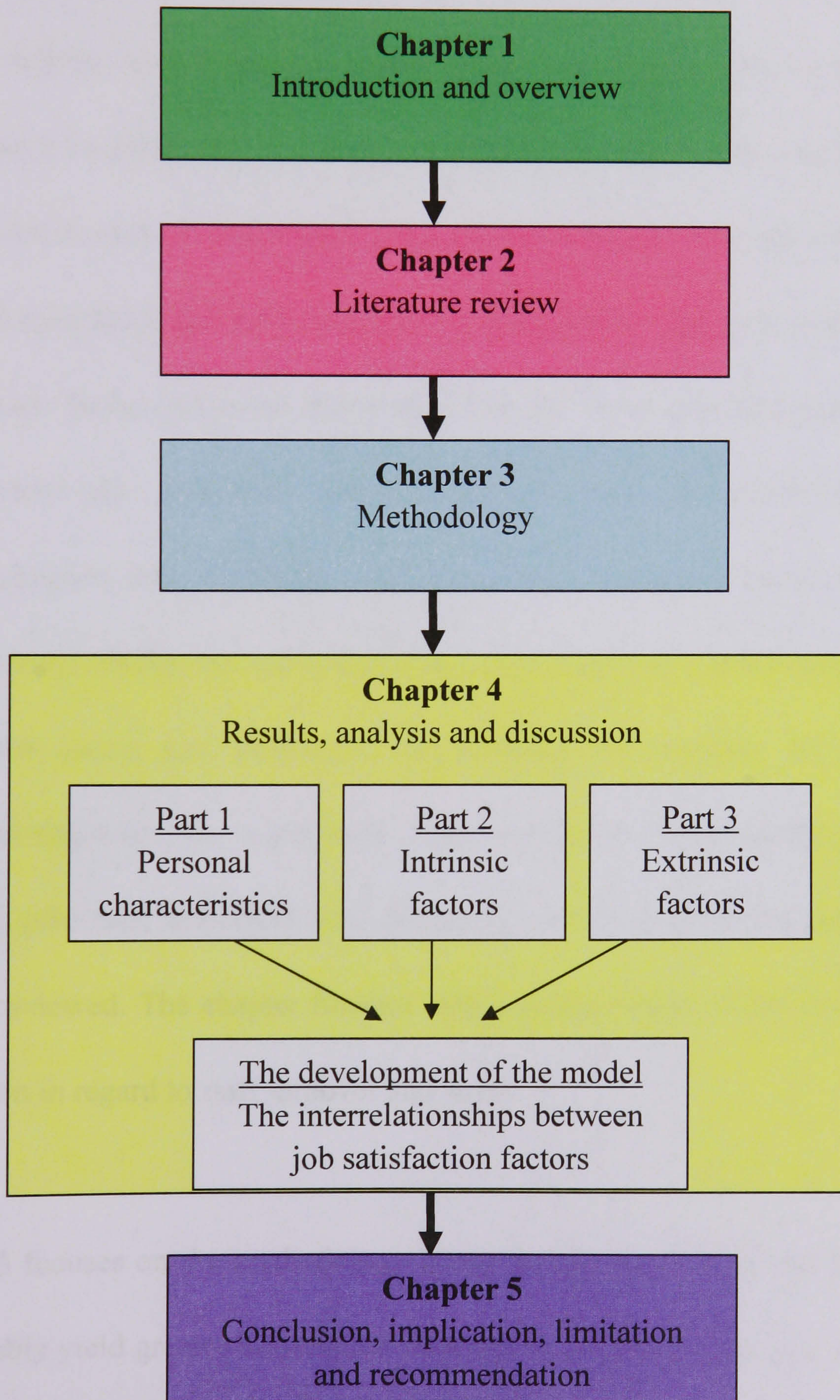


Figure 1.1: Structure of the thesis

The structure of this study is illustrated by Figure 1.1. Chapter 1 establishes the background of the study with a general overview of the Chinese education system and implications for academics of recent changes in higher education. Chapter 2 provides a review of the empirical literature on job satisfaction of university academics by introducing the concept of job satisfaction and examining the various job satisfaction theories. A framework is outlined within which to map and locate a systematic approach to examine job satisfaction. A recent attempt to explain the factors which seem to account for job satisfaction is also introduced in this chapter. Personal characteristics are examined associated with job satisfaction, such as gender, age, time in post and education. The intrinsic factors originate from within the individual and have psychological value. Such factors are essentially self-administered, such as self-esteem, self-efficacy, self-actualisation and flexibility and autonomy. Alongside these, extrinsic factors originate from outside the individual; they come from one's environment, such as work itself, work group, pay, promotion and teaching and research. All these factors act together to determine the overall level of job satisfaction. As academic job satisfaction is produced, perceived and coped with differently in various social contexts, cultural effects are also reviewed. The chapter finishes with a consideration of the consequences of job satisfaction in regard to staff turnover and stress.

Chapter 3 focuses on the methodology issues in this study. A mixed methods approach can arguably yield greater information than can be achieved through a single method and that is more appropriate for a thorough investigation of job satisfaction. The rationale for

the different data collection tools is presented and their use comprises semi-structured interview (qualitative) and self-completion questionnaire (quantitative). Triangulation of the qualitative and quantitative data can increase the reliability of the research and act as a means to achieve more convincing results.

Correspondent with the structure in Chapter 2, the findings of personal characteristics, intrinsic and extrinsic factors associated with job satisfaction are presented and analyzed in detail in Chapter 4. In this Chapter discussion is also moved forward by comparing this study with previous research studies and considering the possible explanations for the results. Then a summary of satisfaction and dissatisfaction factors and a model of interrelationships between these factors are offered. Finally, Chapter 5 brings the analysis to its conclusion. The implications, limitations and recommendations for policy makers and educational researchers are also provided.

CHAPTER 2 - Literature Review

2.1 Introduction

Job satisfaction as an elusive concept has been an issue of concern since Maslow and Herzberg's studies in 1950s. The importance of job satisfaction studies has been emphasized in almost all fields, and especially in business, industry and within the educational field. Massive changes in higher education systems in the 1990s worldwide led to rising expressions of concerns of the quality of higher education and job satisfaction of university academics. Various studies have identified factors that influence academics' job satisfaction, such as interpersonal relationships with colleagues, work conditions, workload, supervision, management, pay, promotion, job security, social status (Bellamy *et al.*, 2003; Burgess *et al.*, 2003; Chimanikire *et al.*, 2007; Egbule, 2003; Evans, 1997a; Houston *et al.*, 2006; Lacy and Sheehan, 1997). Most researchers pay attention to academics' attitudes to work and to ways of increasing their job satisfaction, because they believe the consequences of job dissatisfaction may be associated with increased staff turnover, high levels of claims related to stress - related disability, poor performance and low productivity.

This chapter reviews the empirical literature on job satisfaction of university academics by examining the various job satisfaction theories, as well as the different factors which are seen to account for job satisfaction. The theories have been developed from simple illustrations to more complex evaluations of job satisfaction, which are summarized in

Figure 2.1 below. The overall focus of the theories has emphasized the needs, expectancy and value of employees. Fulfilling all needs could be achieved by strengthening and improving job related factors, which can be classified as intrinsic and extrinsic aspects. The intrinsic factors originate from within the individual and have psychological value. Such factors are essentially self-administered, such as self-esteem, self-efficacy, self-actualisation and flexibility and autonomy. Alongside these, extrinsic factors originate from outside the individual; they come from one's environment, such as work itself, work group, pay and promotion. All these factors come together to determine the overall level of job satisfaction. This chapter will explore the main issues arising from empirical research of job satisfaction which will then function as a basis for the later research. As this study was carried out in the Chinese context, cultural issues are important to be taken into consideration. According to Dimmock and Walker (2000a), the special term 'context' in educational research is represented by societal culture and its mediating influence on theory, policy and practice. Although societal culture is not the only mediating influence, theory and policy in educational management are possibly context bounded, and culture seems to be an important factor impacting on educational research. Accordingly, the next section will address this issue.

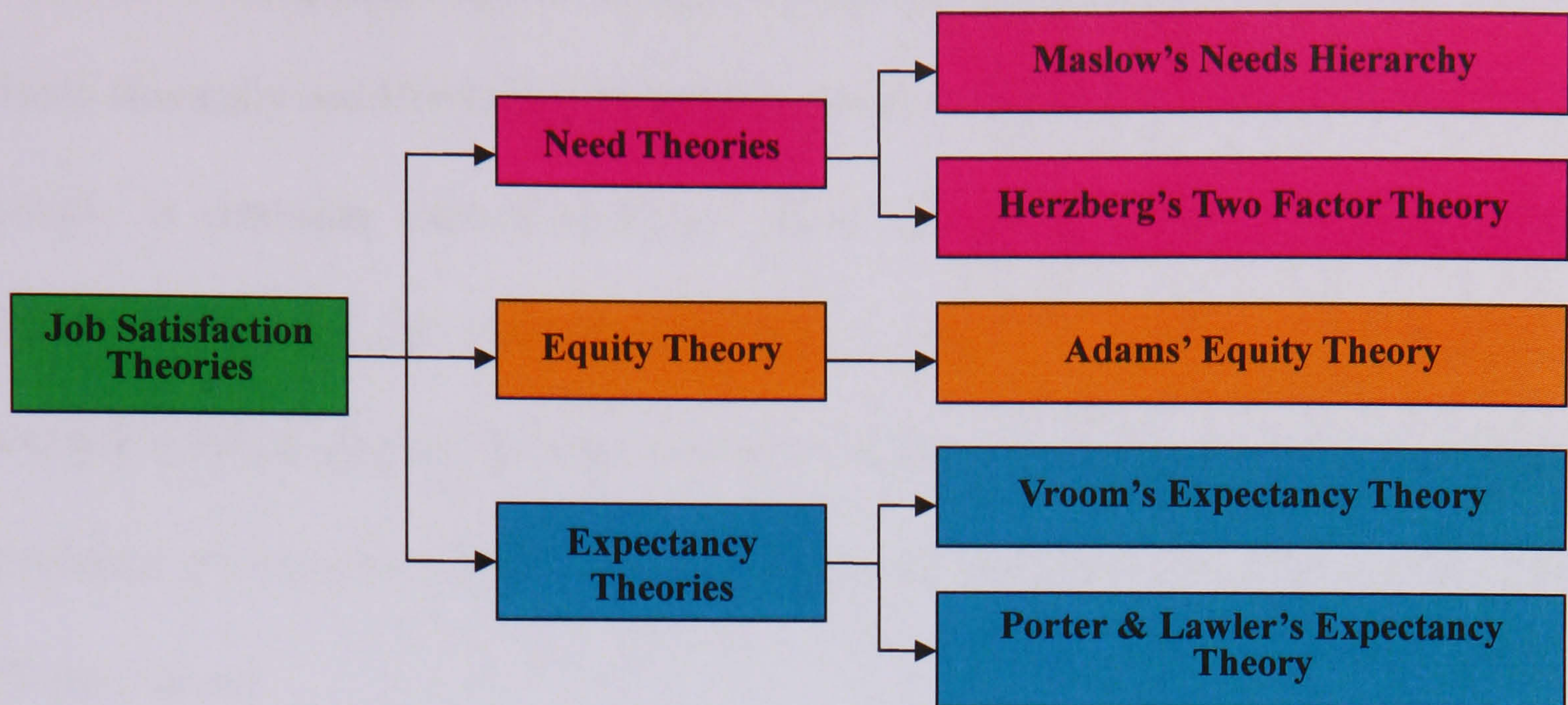


Figure 2.1 Job satisfaction theories

2.2 Cultural Context

International business management and cross-cultural psychology have both acknowledged societal culture as an influential factor for more than two decades. However, the importance of societal culture in educational management studies has been neglected (Dimmock and Walker, 2000a). As a substantial part of theory in educational management derives from business management, there are dangers in transferring and applying business management theories into educational contexts without taking societal culture into consideration (Bottery, 1999). Dimmock and Walker (2000a) stated that both conceptually and empirically, societal culture holds the potential to be a powerful analytical tool for studying educational leadership, management and policy.

It is now recognised that the development of educational theory, policy and practice is dominated by Anglo-American initiatives (Dimmock and Walker, 2000b). Moreover,

most of the management theories being described and tested, such as Maslow's Theory of Needs Hierarchy and Herzberg's Two-Factor Theory, are based on the values of Western culture: in particular individualistic and power distributed societies (Watkins, 2000). However, this does not mean that the theory, policy and practice formulated from Western cultures, such as America, are inappropriate for other cultures, such as China. Therefore, it is necessary to find out through research what theories are appropriate to the Chinese culture.

In enabling researchers to develop more culture-related studies, there is a need to understand what culture is. Barnouw (1963) defined culture as

A way of life of a group of people, the configuration of all the more or less stereotyped patterns of learned behaviour, which are handed down from one generation to the next through the means of language and imitation (p.6).

Hofstede (1991) offered one of the most comprehensive and generally accepted culture definitions:

Patterns of thinking, feeling and acting underpinning the collective programming of the mind which distinguished the members of one human group from another...Culture, in this sense, includes systems of values; and values are among the building blocks of culture (pp. 4-5).

Dimmock and Walker (2000b) agreed with Hofstede and proposed culture as 'the values, customs, traditions and ways of living which distinguish one group of people from another' (p.308). This definition is appropriate to this research as it delineates the meaning of culture in the educational management context.

2.2.1 Cultural Dimensions

In line with understanding the meaning of culture, it is also important to identify generic

cultural dimensions as a way of describing, measuring and comparing cultures (Dimmock and Walker, 1998). Dimmock and Walker (2000b) defined cultural dimensions as ‘core axes around which significant sets of values, beliefs and practices cluster’ (p.308). In this respect, many researchers have offered useful sets of dimensions through empirical study. The best known work among these was conducted by Hofstede (1991). He collected data on employees’ and managers’ attitudes and values from different countries who worked for a multinational corporation (IBM). These data enabled him to identify five dimensions of culture, which captured the nature of cultural difference in work related values among people of 53 nations around the world. Briefly, Hofstede’s (1991) five dimensions are as follows:

- *Power distance (PD)*: focuses on how a society deals with the fact that people are unequal in power distribution. According to Hofstede, high power distance cultures are found in countries where inequities of power are more accepted and there is considerable dependence of subordinates on leaders. Low power distance cultures are found in societies that try to play down such inequalities as much as possible and there is limited dependence of subordinates on leaders.
- *Individualism versus collectivism (IC)*: focuses on whether individual or collective action is the preferred approach to deal with issues. In individualistic society, the ties between individuals are loose and individual achievement and freedom are highly valued. In societies where collectivism is emphasized, the ties between individuals are tight. In such societies, people value the goals of their own group more than individual achievement.

- *Uncertainty avoidance (UA)*: describes the degree to which different societies and cultures develop ways to deal with the anxiety and stress of uncertainty. In high UA cultures, people place a premium on job security, retirement benefits and so on. They also have a strong need for rules, order and structure to reduce risk and uncertainty. Low UA societies are characterized by a greater readiness to take risks and fewer rules to regulate the society.
- *Masculinity versus femininity (MF)*: refers to the degree to which cultures foster or maintain differences between the genders in work related values. In a masculinity dominated culture, sex roles are greatly differentiated and traditional masculine values, such as achievement and exercise of power, dominate culture ideals. In femininity culture, gender differences are less sharply distinguished in work related values.
- *Confucian Dynamism (CD)*: Hofstede studied employees' work related values in Asian countries and identified this cultural dimension. This embodies short-term versus long-term orientation which they adapt from a Confucian idea of virtue versus truth. In societies with long-term orientation, planning can be expected to have a longer time horizon.

Despite the usefulness of Hofstede's cultural dimension, it has been criticized (Trice and Beyer, 1993). First, his research could be accused of being culturally bounded. The data were collected among the IBM employees in America and the analysis may be shaped by cultural biases and concerns. Second, Hofstede assumed that there was a one-to-one

correspondence between culture and society, but some societies have more than one culture. Third, the range of four or five values used may be narrow. Furthermore, it has to be considered the extent to which this study has dated. Cultures change over time and societies are changing into multicultural communities. Hofstede's work should not be accepted without question; meanwhile, it should not be dismissed entirely either. It was regarded as an impetus to viewing and understanding cultures using a dimensional approach. Moreover, the findings of his study have served as the foundation for much of the work that has been carried out since on culture and organisations (Matsumoto, 2000).

Other researchers have found strong evidence that differences in culture affect values and practices in the workplace, and Hofstede's findings have been developed using more diverse samples of individuals in different settings. For example, Trompenaars (1993) studied business employees in 50 countries and suggested an alternative set of societal cultural dimensions. The seven dimensions he identified are as follows: universalism versus particularism; individualism versus collectivism; neutral versus emotional; specific versus diffuse; achievement versus ascription; attitudes to time; and attitudes to the environment.

In connection with societal cultural dimensions and associated theoretical conceptions, Dimmock and Walker (2000b, 2000c) developed their own cross-culture framework based on a synthesis of other models (Hofstede, 1991; Trompenaars and Hampden-Turner, 1997; Walker and Dimmock, 1999). Researches by Hofstede (1991) and Dimmock and

Walker (2000b, 2000c) represent prominent characteristic values underpinning societies. As Hofstede’s dimensions were directly tested in the Chinese culture and Dimmock and Walker’s dimensions shed light on the cultural consideration in the educational field, the comparison of their cultural dimensions (shown in Table 2.1) could help to achieve better understandings of their relationships which provided a base for application in the Chinese context.

Table 2.1: Comparison of Hofstede’s and Dimmock & Walker’s cultural dimensions

Hofstede’s cultural dimensions	Dimmock & Walker’s cultural dimensions
Power distance (PD)	Power-distributed/power-concentrated
Individualism versus collectivism (IC)	Group-oriented/self-oriented
Masculinity versus femininity (MF)	Consideration/aggression
Uncertainty avoidance (UA)	Proactivism/fatalism
Confucian Dynamism (CD)	Generative/replicative
	Limited relationship/holistic relationship

Dimmock and Walker applied the development of cultural dimensions to schools and educational management and administration research. At this point, it is useful to relate these cultural aspects to the current study. Dimmock and Walker’s (2000b, 2000c) six dimensions are as follows:

- *Power-distributed/power-concentrated:* is built on Hofstede’s power-distance dimension which concerns the power distribution within a culture. Power is either distributed more equally among the various levels of a society or is more concentrated. In power-distributed culture, inequities of power distribution are regarded as undesirable and employees prefer decentralization and institutionalized democracy. In the power-concentrated culture, inequities of power are often accepted and employees prefer strong leadership.

- *Group-oriented/self-oriented*: corresponds with Hofstede's individualism / collectivism category and Trompenaars and Hampden-Turner's individualism / communitarianism dimension. This dimension focuses on whether self or group action is the preferred approach to deal with issues. In self-oriented culture, the ties between individuals are loose and relations tend to be based on self-interest. People value individual more than group achievement. In group-oriented culture, the ties between individuals are tight and relations are firmly structured. Collective actions including group goals, harmony, face-saving tend to be valued more.
- *Consideration/aggression*: is modeled on Hofstede's masculinity/femininity dimension. In aggression culture, achievement and the effective exercise of power are stress and competitiveness, assertiveness, materialism dominate the culture ideals. In such culture, school norms emphasize on the best students and academic achievement, failure at school is regarded as serious. In consideration culture, people show high interpersonal consideration, and conflicts are solved by compromise and negotiation. School norms are set by the average students and failure at school is seen as unfortunate.
- *Proactivism/fatalism*: is built on Hofstede's uncertainty avoidance dimension and Trompenaars and Hampden-Turner's attitude to environment category. This dimension reflects how different societies and cultures react to and manage uncertainty and change. In proactive culture, people are ready to take risks and believe that they have a certain kind of control over situations and over change. They are tolerant of different opinions and are not stressed by the uncertainties. By contrast,

in fatalistic culture, people tend to accept the things as they are. They place a premium on job security, retirement benefits and so on. Uncertainty is often seen as psychologically uncomfortable and disruptive, and people have a strong need for rules, order and structure to limit risk and uncertainty.

- *Generative/replicative*: addresses the fact that some cultures are more inclined to creation, or the generation of new ideas and methods, while other cultures are more likely to replicate and adopt the existing ideas and methods. In generative culture, the generation of new ideas, knowledge and approaches is valued. People tend to develop their own ways of thinking. In replicative culture, people tend to adopt the existing ideas and approaches developed elsewhere with little doubt of the alignment to their cultural context.
- *Limited relationship/holistic relationship*: draws on Trompenaars and Hampden-Turner's specific versus diffuse category. This dimension focuses on the assumption that some cultures limit interpersonal relationships by fixed rules, while other cultures support holistic relationships by interaction and personal consideration. In limited relationship culture, objective criteria are applied equally to everyone and interaction and relationships tend to be determined by rules and regulations. By contrast, in holistic culture, interpersonal relationships are valued more than formal rules and regulations. People pay great attention to association and personal consideration.

In line with conducting cultural studies in educational management and leadership, Dimmock and Walker (2000c) also discussed the bounded challenges and limitations of

the approach. The first consideration is the concept of culture. With the various economic, political and demographic influences in different societies, culture may generate multiple definitions and ambiguities. Another challenge is the dynamic nature of many societal cultures. Cultural studies in educational management need to keep pace with educational changes worldwide. A further challenge is the development of a methodology to advance empirical study in cultural researches in educational management and leadership. There is need for both quantitative and qualitative methods. In addition, the researchers need to pay attention to the cultural boundaries. The existing models and theories may not give universal explanations across different cultural areas.

2.2.2 Cultural Analysis in the Chinese Context

The cultural dimensions outlined above illustrate salient work related values and attitudes around the world. Hofstede (1991) measured each of his cultural dimensions by calculating a score indicating its level of strength; scores range from zero, as the lowest, to 100 as the highest. Table 2.2 lists the scores on all five dimensions for Mainland China and Hong Kong. As there were no original dimension scores in Hofstede's study for Mainland China, some of the values in the table have been estimated based on imperfect replications or their personal impressions (Porter *et al.*, 2003). Despite the possible influence of some different cultures, Hong Kong remains first and foremost a Chinese society, and imbued with traditional Chinese culture, with 98% of the population being ethnic Chinese (Bond, 1991; Westwood & Kirkbride, 1998). Thus, cultural dimension scores for Hong Kong are also presented here.

Table 2.2: Cultural dimensions scores for Mainland China and Hong Kong (Adapted from Porter et al., 2003, p. 354)

	PD	IC	UA	MF	CD
Mainland China	80* High	20* Low	60* Medium	50* Medium	118 High
Hong Kong	68 High	25 Low	29 Low	57 High	96 High

* estimated

PD: Power distance; IC: Individualism versus collectivism; UA: Uncertainty avoidance; MF: Masculinity versus femininity; CD: Confucian Dynamism

Hofstede (1991) reported that China had a high score on *PD* (scored 80 out of 100). This finding suggested that the culture in China maintained strong status differences. In terms of Dimmock and Walker's (2000b, 2000c) framework, leadership in China illustrates well the *power-concentrated* nature of society. In Chinese society, inequalities are accepted as natural, and respect and power are attributed to seniority and hierarchy. In schools, this means that leaders are respected by their superior position rather than by job competence. Similarly, older teachers are respected because of their age, regardless of their position (Dimmock and Walker, 2000d). School leaders tend to prevail over the school level decisions and managerial tasks, while teachers' participation is uncommon and they tend to comply with leaders in the interests of harmony (Dimmock and Walker, 2000d). As Redding and Wong (1986) argued, the Chinese are trained to be obedient to superiors from childhood and agree with their instruction without challenge to maintain a harmonious environment.

Another cultural feature distinguished in Chinese society is that it is more collectivist than individualist (Cheng, 1998). As Westwood and Kirkbride (1998) state:

The significant point of reference for (Chinese) people is the collectivity rather than the individual self and the interests of the collective supersede those of the individual. A sense of identity is achieved via membership of and reference to the group rather than

self-reference (p. 567).

Hofstede (1991) supported this perspective and scored China as 20 out of 100 with respect to *individualism/collectivism*. In Dimmock and Walker's concept, Chinese principals are more *group-oriented* than *self-oriented*. In Chinese society, education is seen as a means by which students can adapt to the expectations of the community (Dimmock and Walker, 2002). The role of the school and the principal are based upon developing and ensuring harmony among teachers and students and enforcing common, standard approaches to management, organisation, curriculum and instruction.

In collectivist Chinese culture, good relationships and interpersonal and organisational harmony prevail. In other words, relationships, harmony, and face-saving tend to be valued over tasks. Principals are more likely to put relationships before task achievement and to make promotion on the basis of a combination of contacts, relationships and performance (Dimmock and Walker, 2002). Dimmock and Walker classified such principals as engaging in *holistic relationships*. In Chinese culture, relationships are governed by *guanxi*. According to Westwood (1992), *guanxi* refers to 'the status and intensity of an ongoing relationship between two parties' (p. 51). Within relationships, the Chinese are often socialized to mask their true emotions in personal interactions, often by nodding and smiling.

Such relationships in Chinese society are underpinned by The Confucian Doctrine of the Mean, which defines the individual in relational terms and pushes the individual to control personal emotions, and to avoid confusion, competition, and conflict (Westwood

and Kirkbride 1998). According to Bond (1991), the disturbance of relationships and harmony through conflict can cause lasting enmity in Chinese society. As a result, the Chinese are inclined to avoid face-to-face confrontation and assertiveness. This feature is classified according to Dimmock and Walker's framework as *consideration*. In the school context, Chinese teachers tend to comply with the leaders and often accept their instructions without challenge. Leaders tend to avoid situations which risk conflict and to exercise power in an authoritarian or autocratic manner.

Conflict avoidance and the requirement for harmonious relationship tend to limit the creativity of the group. Leaders and administrators may preserve decisions and policies without any challenge. Even if teachers disagree with them, they may first agree with what leaders said and usually express their different ideas in an indirect and private way (Dimmock and Walker, 2000d). Dimmock and Walker classify such culture as *replicative*. Hofstede (1991) suggests that cultures differ in their approach to change. Some societies are likely to be more creative and innovative, while others tend to be more replicative. In Chinese society, people may be unwilling to take risks and changes and they are stressed by uncertainties. The Chinese tend to accept things as the way they are and are meant to be. In this *fatalistic* view, principals are inclined to place a premium on established philosophies, responsibilities and power relationships to provide staff with security and benefits, while accepting and implementing change, whether they agree with it or not (Hallinger *et al.*, 1999).

In summary, the cultural dimensions outlined above suggest that *power-concentrated*, *group-oriented* and *holistic relationships* play a dominant role in Chinese society.

Westwood and Kirkbride (1998) provide a concise summary of the cultural context in China:

Chinese organisations are configured by a legitimized hierarchy based upon status overlaid with a system of reciprocal personal relationships and rituals. It is the tacit (Confucian) social ethic and the prescribed set of relationships that orders and controls the system, not an abstract and impersonal rule system-as in the Western bureaucratic model. Acceptance of, and compliance to, this form of structure and governance has been deeply rooted in Chinese organisation and persists down to the present day (p. 568).

These cultural factors in China may affect academics' perceptions of job satisfaction. For example, in cultures that are high in *power distance* and high in *collectivism*, academics may work effectively by following the rules and getting support from colleagues. It could be argued that there are differences in job satisfaction and in patterns of satisfaction factors across countries, which could be caused by different cultural experiences and the strength of different needs. As Markus and Kitayama (1991) argued in the psychological literature, the perception of interdependence was more appropriate for most people from non-Western cultures and this has implications for basic psychological processes such as cognition, motivation, and emotion. Therefore, Chinese cultural dimensions may have an effect on the importance of the factors related to job satisfaction and will help to better understand academics' work related attitudes in this study.

2.3 Definitions of Job Satisfaction

When researching job satisfaction, the first consideration is the definition. In the past two decades, different researchers have proposed different definitions of job satisfaction

according to their own perceptions, knowledge and experiences in studying this subject. As yet, there has not been an agreed one; researchers tend to use their own definition related to factors in a particular context. However, most definitions are closely related. The core of them is the state when an individual has positive emotional reactions to a particular job. Vroom (1964) proposed a basic or simple definition; he used the terms ‘job satisfaction’ and ‘job attitude’ to refer to the ‘...effective orientation on the part of the individual towards work roles which they are presently occupying’ (p.14). Blum and Naylor (1968) perceived job satisfaction as the general attitude which reflects specific job factors, individual characteristics, and group relationships outside the job. This definition is more sophisticated than Vroom’s because it shows some source of satisfaction and dissatisfaction.

One of the most popular definitions was proposed by Locke (1969) who defined job satisfaction as

The pleasurable emotional state resulting from the appraisal of one’s job or job experiences as achieving or facilitating the achievement of one’s job values (p. 316).

A similar orientation was shown by Armstrong (1996) when he defined job satisfaction as the attitudes and feelings people have about their job. Positive and favourable attitudes towards the job indicate job satisfaction, and negative and unfavourable attitudes towards the job indicate job dissatisfaction. Spector (1997) stated that job satisfaction was simply how people feel about jobs and different aspects of their jobs which were related to like (satisfaction) or dislike (dissatisfaction).

Relative to academic job satisfaction, there is no general accepted definition; however, Zembylas and Papanastasiou (2004) explored teacher job satisfaction in schools. Their definition focuses upon a teacher's affective relationship to his or her teaching role and the impact of the perceived relationship between what one expects from teaching and what one actually gets from teaching. Zigarreli (1996) referred it as a single, general measure that is a statistically significant predictor of effective schools. Evans (1997b) addressed the conceptual problems associated with the study of job satisfaction in education and identified the ambiguity of the meaning of job satisfaction which emanate from the lack of distinction between 'satisfactory' and 'satisfying'. She suggested re-examining Herzberg's (1968) Two-Factor Theory and reconceptualising job satisfaction as two clear distinct terms: job comfort and job fulfillment. The former relates to the extent to which a person feels comfortable in his or her job. The latter refers to a sense of personal achievement based on self-assessment of one's job related performance. She argues that both job comfort and job fulfillment are components of job satisfaction, which can be interpreted as 'a state of mind encompassing all the feelings determined by the extent to which the individual perceives his or her job-related needs are being met' (Evans 1998, p.4). In the overview of the definitions above, the researcher finds Locke's (1969) view most appropriate for this study, and therefore uses the following definition:

academic job satisfaction in this study is an academic's attitudes and feelings to his or her job resulting from their perceptions of job values and job expectation. In other words, people feel great satisfaction when they perceive that the job they do is valuable and when differences between how much they desire and how much they receive are

small.

2.4 Job Satisfaction Related Theories

Since various definitions of job satisfaction can be derived from different theories, there is a need to examine underpinning theories when researching this topic. Studies in job satisfaction have developed from simple illustration of needs theories to more complex evaluation and investigation to determine the cause and effect of job satisfaction.

2.4.1 Need Theories of Motivation

It is widely accepted that job satisfaction can not be separated from needs theories of motivation, and motivation theories laid the foundation for job satisfaction theories.

According to Schaffer (1953), job satisfaction was one of individuals' needs fulfillment:

Overall job satisfaction will vary directly with the extent to which those needs of an individual which can be satisfied in a job are actually satisfied; the stronger the need, the more closely will job satisfaction depend on its fulfillment (p.3).

The basic principle of needs theories is that people will be motivated to behave in a certain manner when their needs are satisfied. Two of the most famous needs theories are Maslow's Hierarchy Needs Theory and Herzberg's Two-Factor Theory.

Maslow (1954) distinguished between lower-order and higher-order needs and identified that every person has a certain set of needs. The physiological, safety/security, belonging and love needs are described as lower-order needs and achievement and esteem, and self-actualisation needs as higher order needs. The differentiation between the two orders is made on the basis that higher order needs are satisfied internally but lower order needs

are satisfied externally. These needs are hierarchical in nature, in the sense that, in order for the higher level needs to be met, the lower level needs must first be met. In other words, if one need is satisfied, then another emerges. The hierarchy is shown below.

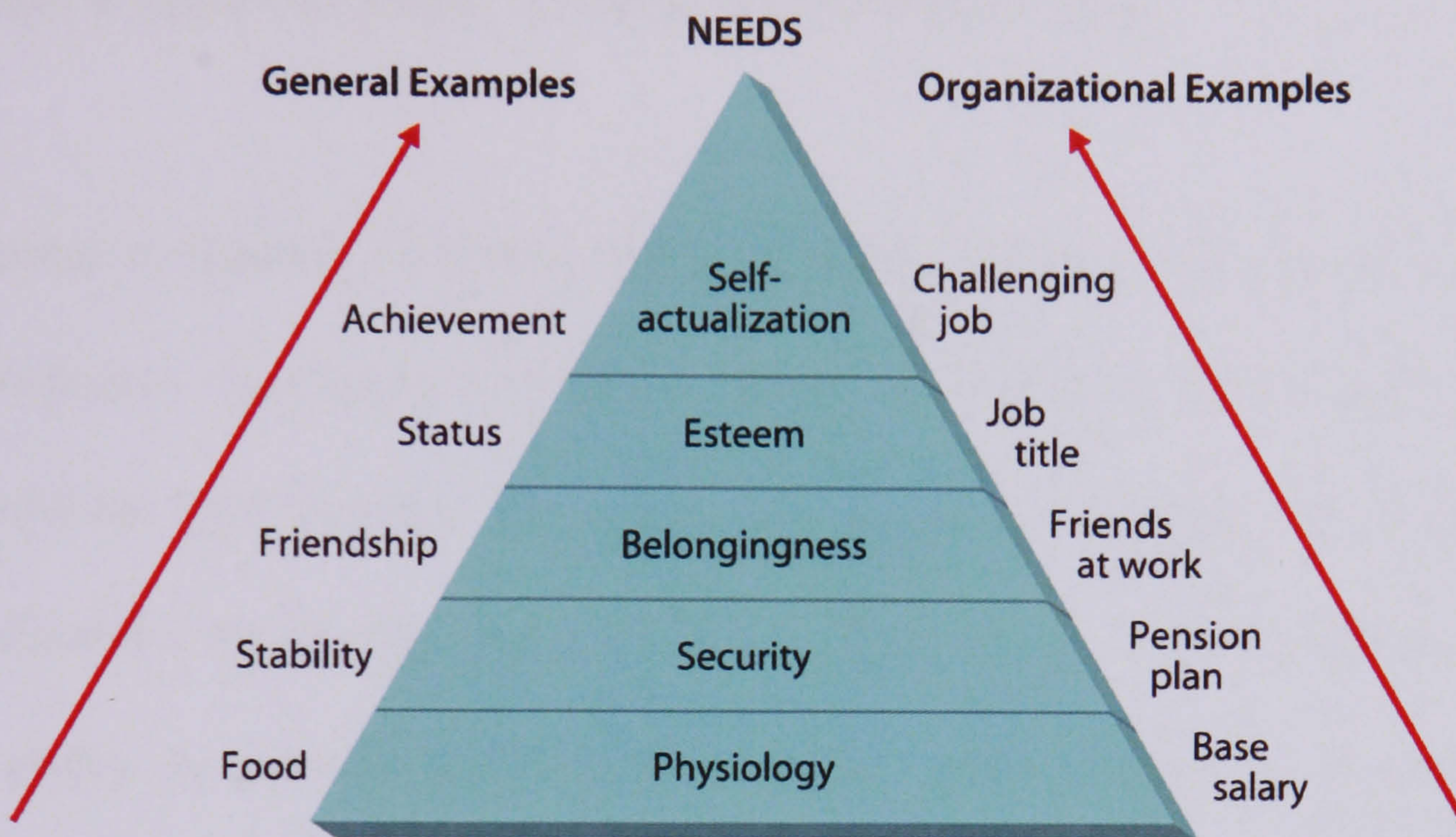


Figure 2.2: Maslow's Hierarchy of Needs Theory (Adapted from Maslow 1943, pp. 370-396)

Despite its central position in the literature, Maslow's theory has received little or no empirical support (Salancik and Pfeffer, 1977). In a review of thirteen studies, Wahba and Bridwell (1976) concluded that the concept of a hierarchy was only partially supported. The confusion between needs and values in Maslow's theory was also criticized by Locke (1976) when he stated that the hierarchy may differ with each individual, and that a given hierarchy and an individual's actual needs may not correspond. Benton and Halloran (1991) stated that this hierarchy of needs is convenient, but it is also misleading because one does not need full satisfaction of a lower-order need before the next need makes itself felt. In line with research into and the application of this theory, Berry (1998) stated that although this theory has received little support, especially related to the needs-hierarchy,

historically, it is important because it gives managers ideas of practical approaches to motivation and how to meet employees' needs. It is a suitable framework for looking at the different needs and expectations that people have, and the different motivators that might be applied to people at different levels (Mullins, 1996).

Similar to Maslow, Herzberg (1968) expressed his theory of motivation in terms of satisfaction. Herzberg's Two-Factor Theory was developed from research findings in particular work contexts. He argued that factors that influence job satisfaction (e.g. motivators) are separate and distinct from those that influence job dissatisfaction (e.g. hygiene). In general, motivators are intrinsic sources relating to the content of job: achievement, recognition, work itself, responsibility and advancement. He argued that:

The satisfier factors are named the motivators, since other findings of the study suggest that they are effective in motivating the individual to superior performance and effort (p. 73).

On the other hand, hygiene factors are extrinsic sources relating to the context of the job: company policy and administration, supervision, salary, interpersonal relations and working conditions. These factors may create job dissatisfaction. In addition, he stated that job satisfaction and dissatisfaction are not opposites of each other. He postulated that the opposite of job satisfaction is not job dissatisfaction but, rather no job satisfaction; and similarly, the opposite of job dissatisfaction is not job satisfaction but, no job dissatisfaction; which in fact means a feeling of indifference. Figure 2.3 depicts Herzberg's Two-Factor Theory and factors affecting job satisfaction.

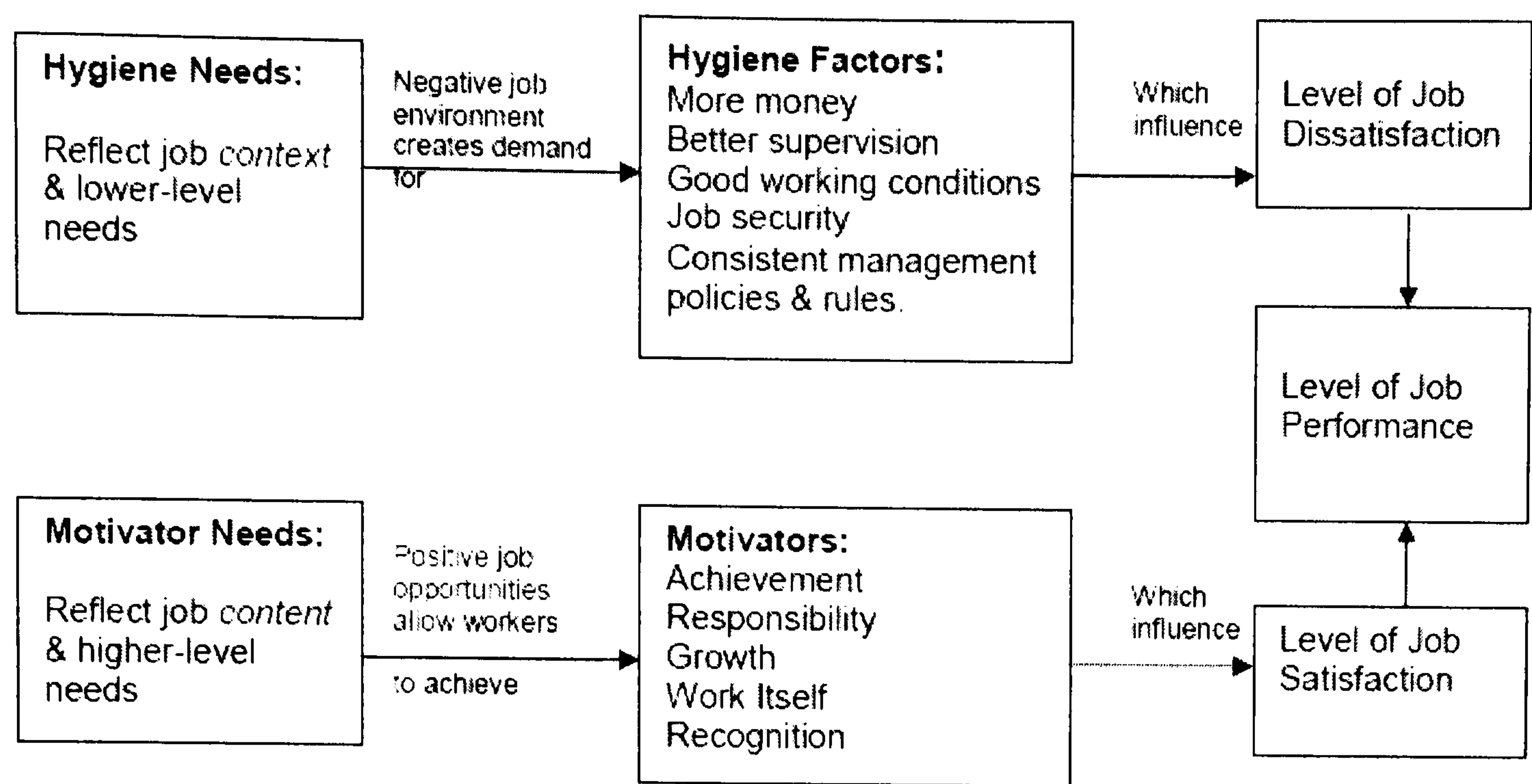


Figure 2.3: Herzberg’s Two-Factor Theory (Adapted from Carrell *et al.* 1999, p.108)

Herzberg’s Two-Factor Theory can be related roughly to Maslow’s Hierarchy Theory (see Table 2.3). Bockman (1971) argued that there is some similarity between these two theories. Both of them suggest that needs have to be satisfied for the employees to be motivated. Luthans (2005) compared Herzberg’s theory with Maslow’s and concluded that the hygiene and motivation factors are similar but not identical to Maslow’s lower-level and higher-level needs. The hygiene factors do not motivate, only the motivators can lead to motivation. Sergiovanni (1968) also drew the link between two theories and supported the personal needs fulfillment interpretation.

Table 2.3: Linking Maslow’s and Herzberg’s theories of motivation

Maslow’s Hierarchy of Needs		Herzberg’s Two-Factor Theory
Physiological	Lower-order needs	Hygiene factors (Extrinsic)
Safety		
Love		
Esteem	Higher-order needs	Motivators (Intrinsic)
Self-actualisation		

Herzberg’s theory is a source of frequent debate. Many studies testing it have produced

different conclusions. Vroom (1964) argued that the theory was only one conclusion that could be drawn from the research. House and Wigder (1967) drew attention to the influence of individual differences: a factor which caused job satisfaction for one person may cause dissatisfaction for another. They concluded that the theory is over-simplified. In addition, Herzberg's research was conducted among supervisors and middle management, therefore its applicability to other areas of work or to workers of a different culture, is questionable (Fraser, 1989). Despite theoretical criticisms proposed against Herzberg's theory, it can be considered to be important as it was one of the first attempts to draw the distinction between intrinsic and extrinsic motivation (Salancik and Pfeffer, 1977). It still remains popular as a theory of motivation and has become widely known among managers and has inspired a number of successful change projects involving the redesign of work (Hackman, 1980).

2.4.2 Equity Theory of Motivation

Equity theory states that people are not only motivated when their needs are met but they also want their reward system to be fair. In other words, job satisfaction is determined by the degree of equity or inequity they perceive they have in their work situation (Luthans, 2005). Adams' (1965) Equity Theory is one of the most popular explanations of human behaviour in work organisations, which assumes that people always compare what they do to what they get or what they get to what others get or what they give to what they receive.

Three key factors used in explaining and understanding motivation in equity theory are: inputs, outcomes and referents (Adams, 1965). Inputs are what a person brings to the job such as age, education, intelligence and skills. Outcomes are things that the person perceives to be received as a result of work. They may be positive factors such as pay, rewards and recognition, or negative such as poor working conditions and pressure from management. Referent is the focus of comparison for a person, either other individuals or other groups. According to Adams, people are motivated to maintain fair relationships between inputs and outcomes. He said that inequity exists for a person whenever he perceives that the ratio of his outcomes to inputs and the ratio of other's outcomes to other's inputs are not equal. Equity theory oversimplifies the motivational issues by not explicitly considering individual needs, values, or personalities (Gordon, 1996). This oversimplification becomes extremely important where there are cross cultural differences and more diversified work force.

Some studies have shown that reactions to salary increases are influenced by the employees' perceptions of the fairness of the increases. If the employees perceive that they are allocated a fair pay increase, they would be more satisfied than if they perceive the increase to be allocated unfairly. Job satisfaction is influenced more by the perceived fairness of the procedures used to allocate pay increases than by the actual amount of the pay increase received (Hellriegel *et al.*, 1998).

2.4.3 Expectancy Theories of Motivation

With the further exploration of job related theory, it is easy to find two main expectancy theories behind motivation: Vroom's Expectancy Theory (1964) and Porter and Lawler's Expectancy Theory (1968).

Though expectancy theory has its critics, it has generally developed results that indicate it is currently the clearest and most accurate explanation of individual motivation (Robbins, 1983, p. 152).

Vroom's (1964) Expectancy Theory is predicated on 'a view of behaviour as subjectively rational and as directed toward the attainment of desired outcomes and away from aversive outcomes' (p. 276). This theory is built on the notion of individuals' choices of the type of behaviour which brings them a higher reward of satisfaction or the lowest negative outcome (or avoidance) of dissatisfaction. It provided a way to estimate how much effort an individual would put into performing a task. To do this, Vroom proposed a formula for calculating a person's motivational forces:

$$\boxed{\text{Motivation Force}} = \boxed{\text{Expectancy}} \times \boxed{\text{Instrumentality}} \times \boxed{\text{Valence}}$$

Vroom contended that an individual's choice of the type of behaviour results from consideration of both preference for a particular activity and its expected outcome. Valence and expectancy are combined together in a process called "multiplicatively" in order to produce the expected effort. In summary, Vroom's Expectancy Theory can be depicted as Figure 2.4:

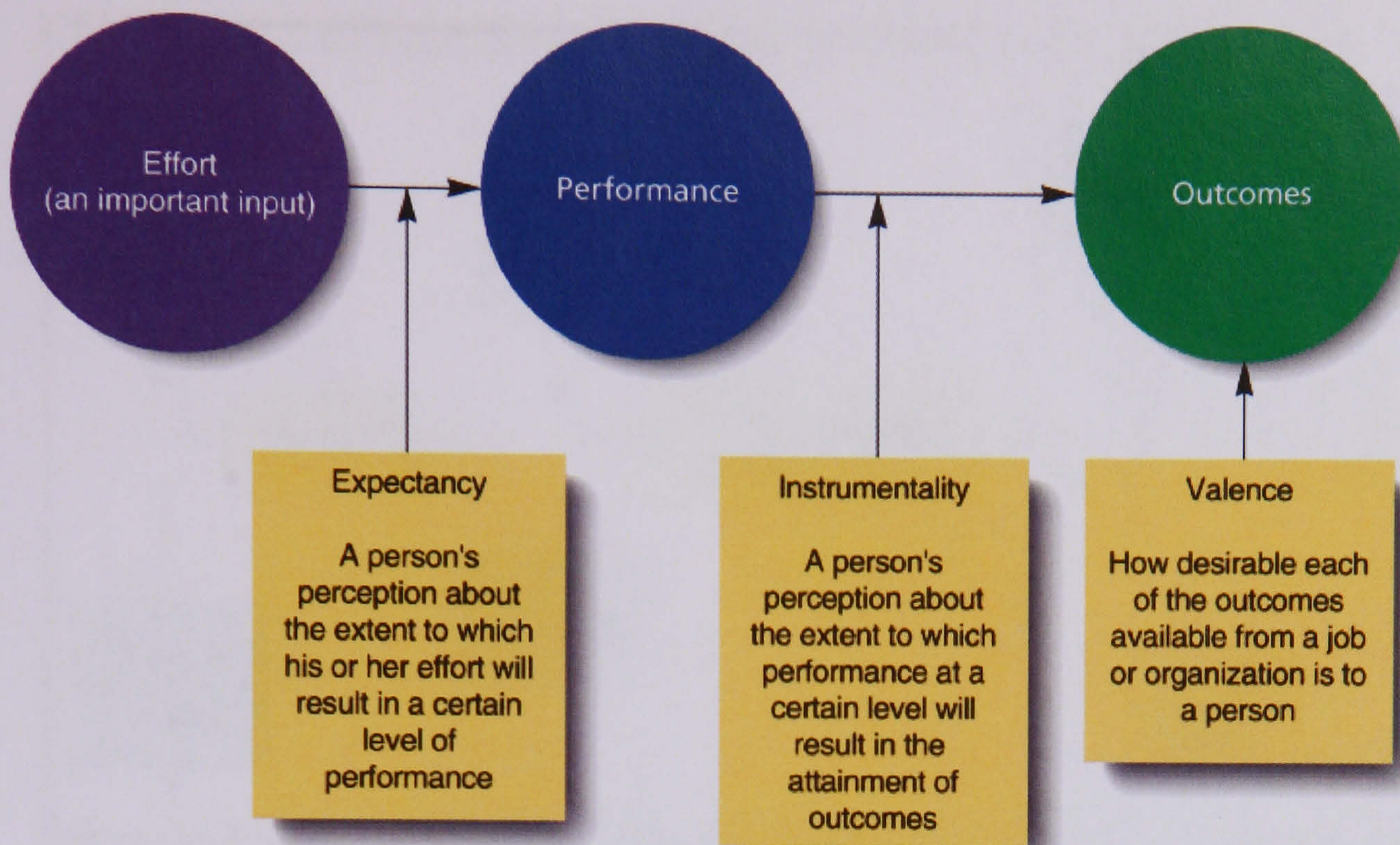


Figure 2.4: Vroom's Expectancy Theory (Adapted from Mullins 2007, p.267)

Porter and Lawler (1968) extended and refined Vroom's theory and introduced a new model which is depicted in Figure 2.5. In this model, if the rewards can satisfy an individual's needs, they can be regarded as the valuable rewards, then the individual will aim for a higher level of performance. If the individual perceives that the increased effort will lead to a reward, the individual will further increase his effort. They also focus on the expectation: 'Overall job satisfaction is determined by the difference between all those things a person feels he should receive from his job and all those things he actually does receive' (Evans, 1998, p.5). In their studies, they differentiate the outcomes by classifying them into intrinsic and extrinsic rewards. They consider the first as self-administered and immediately satisfying. Extrinsic rewards are said to be administered by others, and they provide the means of satisfaction.

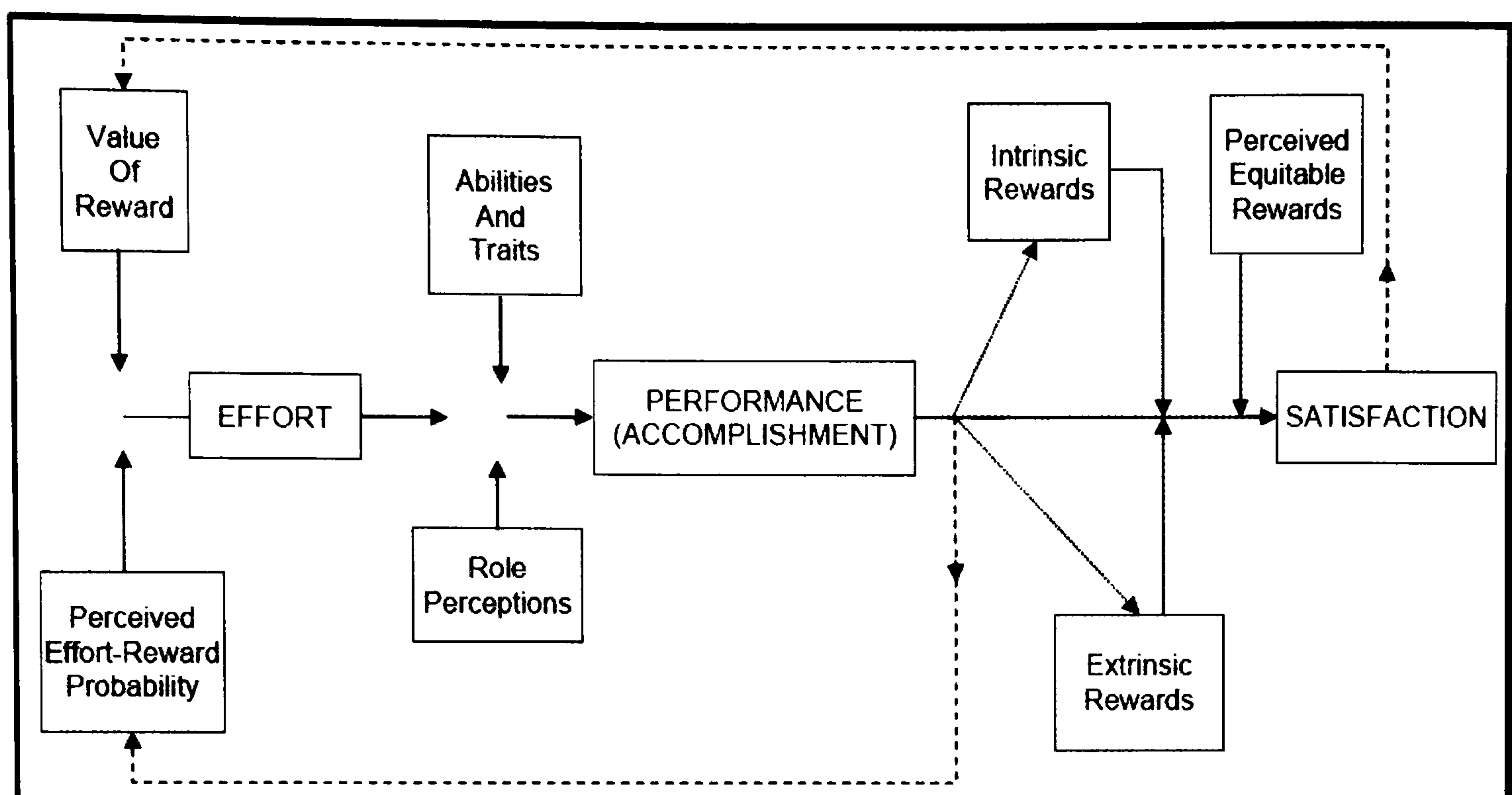


Figure 2.5: Porter and Lawler's Expectancy Theory (Adapted from Porter and Lawler 1968, p. 165)

Porter and Lawler used the Discrepancy Hypothesis (Locke 1976) and Adams' (1965) Theory of Motivation and predicted individual's satisfaction with different aspects or facets of the job. They found that the level of job satisfaction is determined by comparisons between expectations of what should be received and perceptions of what should be expected. It is when the amount received is the same as the amount expected that leads to satisfaction with the job. Conversely, dissatisfaction occurs when we get less than we hope. Considering the important position of Porter and Lawler's Expectancy Theory related to job satisfaction, it is useful to have a view of the relevant concepts (Mullins, 2007; Porter and Lawler, 1968):

- **Value of reward:** describes the various outcomes (rewards) which people hope to achieve from work. The value of reward depends on the situation and context of the individual. 'The feedback loop formed from 'satisfaction' to 'value of rewards' suggests that rewards acquire valence as their ability to satisfy' (Landy, 1989, p. 383).
- **Perceived effort-reward probability:** refers to a person's expectation that rewards

depend on a given amount of effort. The feedback loop formed from the performance-rewards linkages to the perceived effort-reward probability suggests that an individual's future efforts will be influenced by his experiences.

- **Effort:** refers to the amount of energy a person exerts on a given activity. The amount of energy exerted depends upon the interaction of the value of rewards and the perceived effort-reward probability.
- **Abilities and traits:** effort does not lead directly to performance but is influenced by individual characteristics. Personality traits, intelligence, skills, knowledge and training were mentioned as examples of abilities and traits.
- **Role perceptions:** refers to the way in which an individual views their work and the role they perform. This influences the type of effort exerted.
- **Performance:** is defined as 'a person's accomplishment on tasks that comprise his or her job. In other words, performance is accomplished by the result of effort' (Porter and Lawler, 1968, p. 26). Performance depends not only on the amount of effort exerted but also on the influences of both a person's abilities and traits, and the role perceptions.
- **Rewards:** are desirable outcomes. Rewards should be positively valued by the individual and can be intrinsic or extrinsic. Intrinsic rewards are derived from the individuals themselves and include a feeling of accomplishment and recognition (for example Herzberg's motivators). Extrinsic rewards derive from the organisation and the actions of others and include working condition and pay (for example Herzberg's hygiene factors). According to Porter and Lawler (1968), 'rewards are desirable

states of affairs that a person receives from either his own thinking or the action of others' (p. 29). The relationship between performance and intrinsic rewards is dashed line, because the extent of relationship depends on the nature of job. When the job design involves the variety and challenge, there is direct relationship between performance and intrinsic rewards, and vice versa.

- **Perceived equitable rewards:** is defined by Porter and Lawler (1968, p. 30) as 'the amount of rewards that a person feels is fair, given his performance on the tasks he has been asked to undertake by the organisation'.
- **Satisfaction:** Satisfaction is the pleasurable attitude and the emotional state when rewards actually received meet or exceed the perceived equitable level of rewards. If perceived equitable rewards are greater than actual rewards received, the person experiences dissatisfaction. This concept is measured by the perceived equitable level of rewards and level of rewards actually received.

Exploration of The Expectancy Theories of Vroom and Porter and Lawler means that we can see the use of slightly different terms; however, both theories comprise three basic components: expectancy, instrumentality and valence. In addition to the three similar factors, Porter and Lawler introduce more concepts: abilities and traits, role perceptions, perceived equitable rewards and satisfaction. Considering its important position in motivation theories, Porter and Lawler's model will be used to compare with other motivation theories in the following section.

2.4.4 An Integrated Framework

So far we have viewed a number of motivation theories. Although each theory takes a somewhat different approach to motivation, it is possible to identify similarities among them and synthesize them into a large comprehensive model. As shown in Figure 2.5, Porter and Lawler (1968) introduced a dynamic motivation model, and it could be argued that it includes many of the motivation theories as representative of the different components.

When we examine the various theories of motivation in light of Porter and Lawler's Model (1968), we can find that each can be incorporated into this framework. Maslow's distinction between higher-order and lower-order needs, and Herzberg's distinction between intrinsic (motivators) and extrinsic (hygiene factors) factors, can be related to intrinsic and extrinsic rewards. The concepts of valence, instrumentality and expectancy in Vroom's Expectancy Theory can be incorporated into the value of reward, a relationship between performance and rewards and perceived effort-reward probability in the model. The concepts of Adams' Equity Theory can be incorporated into the category of perceived equitable rewards. Their influence can be seen to reflect the interaction of equitable perceptions and rewards in determining satisfaction. The summary of similarities of the motivation theories compared with Porter and Lawler's model is presented in Table 2.4. The reason to illustrate all these theories is that not only they are a theoretical foundation of this study, but also they are close related to job satisfaction factors and provided the basis for the analyses and discussion in Chapter 4.

Table 2.4: The similarities of the motivation theories

Porter & Lawler	Maslow	Herzberg	Vroom	Adams
Value of reward: The desired outcomes people hope to achieve from work.			<u>Valence:</u> Value of expected outcomes.	
Perceived effort-reward probability: The probabilities that reward depends upon performance and performance depends upon effort.			<u>Expectancy:</u> Effort will lead to good performance.	
Performance			<u>Instrumentality:</u>	
Intrinsic and Extrinsic Rewards: The desirable outcomes.	<u>Higher-order needs:</u> Internally. <u>Lower-order needs:</u> Externally.	<u>Intrinsic factors:</u> Motivators. <u>Extrinsic factors:</u> Hygiene factors.	Good performance will lead to desired outcomes. This exists between performance and rewards.	
Perceived equitable rewards: The rewards that a person feels are fair.				<u>Equity:</u> The reward system should be fair.
Effort	No similarities			
Abilities and traits				
Role perceptions				
Satisfaction				

From the previous discussion, we can see that testing the application of all motivation theories can be achieved by examining job related factors.

Theory helps in building generalized models applicable to a range of organisations or situations. It further provides a conceptual framework and gives a perspective for the practical study of the subject (Mullins, 2007, p. 4).

Based on these theories, the correlation of job satisfaction theories and work factors can be summarized in Table 2.5 which has been used to generate questions in interview and questionnaire as presented in Chapter 3. It is these correlations that support the investigation of the influences of different job related factors and help to create the conceptual framework presented later in this Chapter.

Table 2.5: Job Satisfaction-Correlation of Work Factors and Theories

Work factors	Maslow	Herzberg	Adams	Vroom	Porter&Lawler
Intrinsic factors				X	X
Self-esteem	X	X			
Self-efficacy		X			
Self-actualisation	X	X			
Extrinsic factors				X	X
Work itself		X			
Work group	X	X			
Pay	X	X	X		
Promotion	X	X	X		

Before looking at all these work related factors in next section, it is worth taking into consideration that these motivation theories are culture bounded. As previously stated, theories presented above are of Western origin and have been developed in the US or at least influenced by the US theoretical work (Hofstede 1991). In this case, both the general and the specific influences that affect work motivation in various cultural contexts should be considered. Theory related concepts may have different meaning in other societies. Hofstede (1991) reported that in countries high on uncertainty avoidance (such as China) as compared with countries low on uncertainty avoidance (such as the US), security motivates employees more than does self-actualisation. Countries where feminine culture is dominant (such as Norway) tend to stress the quality of life over productivity (masculinity culture); social needs tend to dominate the motivation of employees. Employees in collective countries (such as China) tend to stress social needs over the more individual ego and self-actualisation needs. Countries with high need for achievement have also high need to produce (masculinity dimension) and a strong willingness to accept risk (low uncertainty avoidance). The theories consequently do not give universal explanations of motivation, but reflect the values system of the US

(Hofstede, 1991). Therefore, in the current study, there is a need to test the generalisability of Western motivation theories in the Chinese cultural context.

2.5 Job Satisfaction Related Factors

To gain a holistic and deep understanding of academic job satisfaction, there is a need to look at some of the key factors - the most commonly researched aspects - related to job satisfaction. Although this research investigates academics in the higher education context, literature on job satisfaction in general is important and relevant, as it has direct relevance to the current study. Figure 2.6 provides an overview of these factors which will be explored in turn.

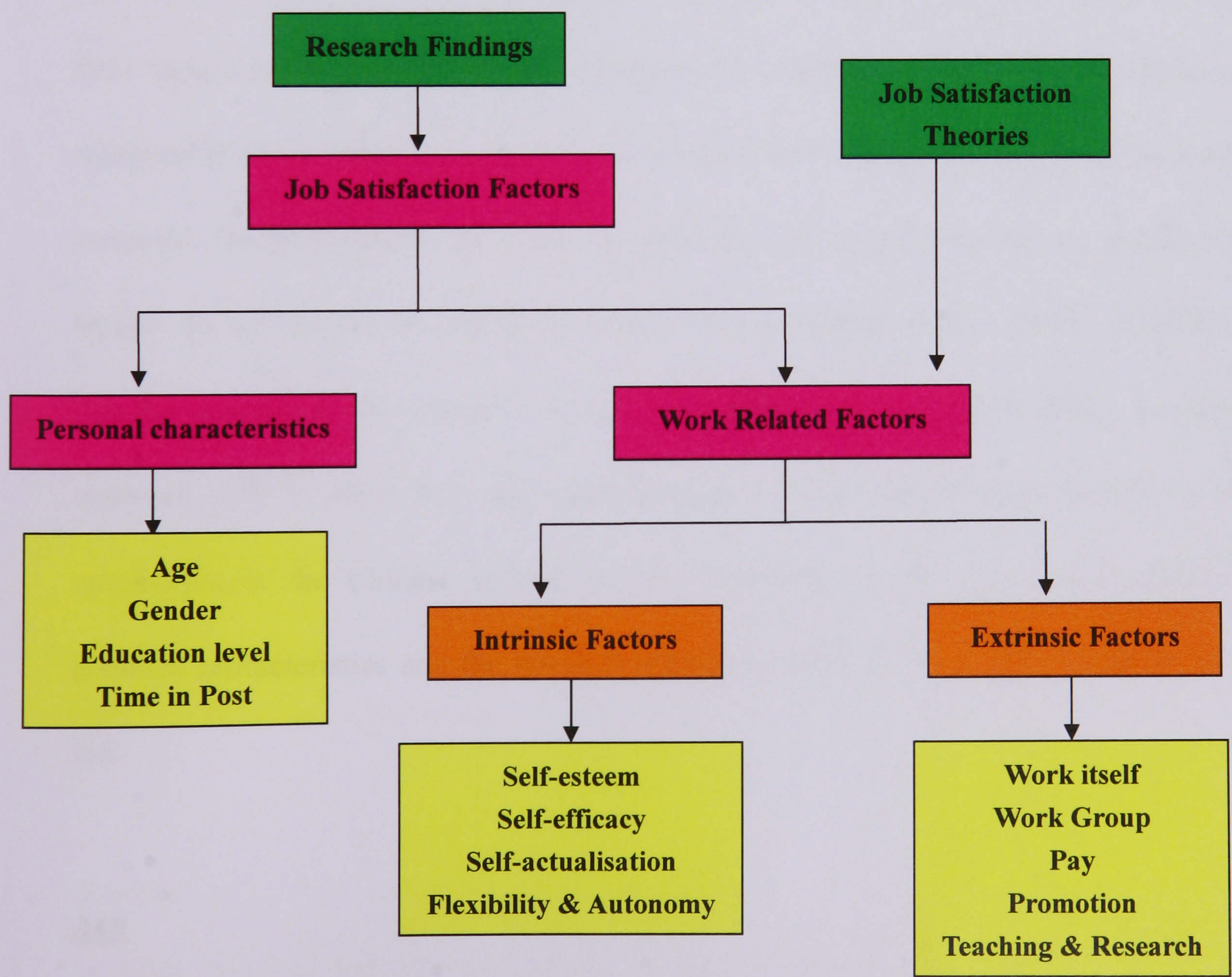


Figure 2.6: An overview of job satisfaction factors

2.5.1 Personal Characteristics

Researchers have attempted to investigate whether personal characteristics such as gender, age and education are predictive of job satisfaction. There is evidence that various demographic variables can be associated and age, gender and time in post are among the most investigated. Sloane and Williams (1996) studied Scottish academics' job satisfaction and found that male, young, higher qualified and experienced workers consistently expressed themselves as less satisfied with their jobs. In an analysis of selected junior college athletic directors and head coaches in the USA, Davis (2002) found that there were no significant associations between levels of satisfaction and personal characteristics. Variables such as age, gender, experience, and education had little impact on the perceptions of satisfaction by coaches. Sipon (1997) also found no relationship in the Malaysian HE context, between job satisfaction and the independent variables. He investigated: age, teaching qualifications, teaching experience, gender and tenure. As we can see that different researchers have drawn various results in different cultural context, so the research in China is needed. In the current study, a similar approach will be used. Personal characteristics will be examined in relation to job satisfaction in the Chinese cultural context particular. In the next section different personal characteristics and the research literature related to them will be examined in full.

Age

Age is considered to have significant influences on job satisfaction in education

(Oshagbemi, 1999; Rosen, 1978). Numerous studies have reported positive relationships that older teachers were more satisfied with their jobs than were younger teachers (e.g. Weaver, 1980; Sweeney, 1982). However, in the work with the US school principals, Bacharach and Mitchell (1983) found that age is negatively related to job satisfaction. Mercer (1996) found a U-shape pattern between age and job satisfaction in his research of job satisfaction of headteachers in the UK. He stated that new headteachers had a high level of both satisfaction and dissatisfaction, and that there was a fall in level of satisfaction for headteachers working between five and ten years. The very experienced older headteachers also possessed a high level of job satisfaction. In a Canadian study, however, Johnson and Holdaway (1991) found no significant difference between age and job satisfaction among school principals. Tu *et al.* (2005) also found that no statistical significant differences for full-time Taiwanese and Chinese university faculty in the overall job satisfaction of age at higher education. This work is important to note as it studied job satisfaction of Chinese academics, the same cultural context as this research. The issue of whether age and job satisfaction has a positive / negative or U-shaped / curvilinear relationship remains undetermined. Considering the cultural issue in China, older teachers are always respected because of their age regardless of position, which may bring them a sense of satisfaction. Therefore, age effect to academic job satisfaction is important to notice in this study.

Gender

Previous research into job satisfaction in the educational field has shown that male

academics tended to be more satisfied than females. For example, Lacy and Sheehan (1997) researched academic job satisfaction across eight countries and found that males in comparison to females showed a tendency towards higher overall levels of job satisfaction, and this difference was significant for all nations with the exception of Israel and Mexico. However, results from the Uganda study (Ssesanga and Garrett, 2005) suggested a picture of academics with much in common but with some significant differences between groups. Although both male and female academics felt relatively happy with teaching, there is some evidence to suggest that men were more likely to signal satisfaction with extrinsic factors. Similar results were found by Ward and Sloane (1999) that the overall job satisfaction and a number of its components among Scottish academics did not vary widely by gender. This result may not be surprising. According to Ward and Sloane's arguments, with a highly educated workforce such as the academic profession, the gender gap in job satisfaction might be expected to disappear. Female workers may expect their job to be more comparable to male workers due to their similar levels of education. As this study researched Chinese academics who are categorized as a highly educated group, it may draw similar conclusion as Ward and Sloane's work. Considering cultural issues, as shown in Table 2.2, Porter *et al.* (2003) estimated the masculinity/femininity score as 50/100 medium in mainland China, which indicated that gender difference are less sharply distinguished in work related values. Therefore, it could be expected that the gender gap in job satisfaction may not be significant in this research.

Time in Post

Length of time in post suggested that an individual has internalized the work system and learned how to behave and cope with it. In this case it is expected that organisational loyalty and citizenship of an individual will be established and enhanced. In the educational field, many studies found correlations between length of service and job satisfaction. In a study of 2638 headteachers in the UK, Cooper and Kelly (1993) found that length of time in present post was a significant source of job dissatisfaction, the longer in post, the greater the dissatisfaction. Ssesanga and Garrett (2005) found that new academics in Uganda were likely to show less discontent with extrinsic factors, while long serving academics felt happier with intrinsic factors. However, Oshagbemi (2000) illustrated that among university instructors in the UK the length of employment in higher education does not correlate with job satisfaction but that longer employment at their current university positively correlates with job satisfaction. Tu (2002) found that overall job satisfaction of full-time Taiwanese university faculty members was not statistically significant in terms of time in service ($F=0.537$, $p=0.709$). But when compared with Taiwan, the overall job satisfaction of the full-time Chinese university faculty showed statistically significant difference ($F=3.017$, $p=0.019$). Accordingly, with the similar research context as Tu's study, the effect of time in post to academics' job satisfaction could be expected in this study.

Education

The literature on job satisfaction indicates that levels of education influence an individual's job attitudes and motivation. Clark and Oswald (1996) provided some

evidence that job satisfaction differential is found to decline with rising levels of education. In a study of five Scottish universities, Ward and Sloane (1999) stated that education and experience in a good job might provide mechanisms whereby levels of expectation could be revised upwards. This argument may not be surprising as most academics face several years extended study before taking a position in a university and the high investment in human capital may cause rising expectations to the job. In this case, it may be true that academic job satisfaction may decline with rising levels of education, regardless of any cultural context. Therefore, the correlation between education and job satisfaction can be expected in this research.

2.5.2 Work Related Factors

In a summary of the work related factors affecting individual's job satisfaction, Smith *et al.* (1975) contend that the evaluation of satisfaction or dissatisfaction is made on the basis of a frame of reference which may be either (1) an internal, absolute standard of value that is unaffected by context or (2) an external, relative standard that is specific to a particular context. Various studies have identified work related factors in terms of intrinsic and extrinsic in the light of Herzberg's Two-Factor Theory and Smith's argument. In the current study, the researcher will examine work related factors with respect to intrinsic and extrinsic factors.

2.5.2.1 Intrinsic Factors

Intrinsic factors originate from within the individual and have psychological value, such

as self-esteem, self-efficacy, self-actualisation and flexibility and autonomy.

2.5.2.1.1 Self-esteem

Self-esteem has been defined as the extent to which people feel valued and taken seriously (Rosenberg *et al.*, 1995).

It is the evaluative component of self-knowledge. High self-esteem refers to a highly favourable and low self-esteem to an unfavourable global evaluation of the self (Salmela-Aro and Nurmi, 2007, p. 464).

In this study, the university academics' self-esteem was subject to strong influence by social and external aspects and was responsive to situational effects, including social status, recognition and respect in society and their own perceptions to be academics. High self-esteem shows a sense of self-worth with the implication that one will be accepted rather than rejected by others, and that individuals will govern their own thoughts, feelings and actions. Studies reported that a positive relationship between job satisfaction and self-esteem are common (Pierce and Gardner, 2004). LeRouge *et al.* (2006) investigated IT professionals' self-esteem and stated that self-esteem had a main effect on job satisfaction and organisational commitment. In examining the literature of the self-esteem, the possibility is raised that self-esteem of university academics may affect their job satisfaction.

2.5.2.1.2 Self-efficacy

Self-efficacy is considered as the belief and confidence on one's capability to execute successfully certain kinds of actions (Bandura, 1986). In the current study, self-efficacy is regarded as the university academics' perceptions of their skills and abilities to

accomplish job related tasks. Previous studies supported that teachers' self-efficacy beliefs affected the satisfaction and motivation they draw from their profession (Ross, 1998; Tschannen-Moran and Woolfolk Hoy, 2001). Recent research studies have shown that teachers' self-efficacy beliefs have played a crucial role in promoting their firm commitment to the profession and their job satisfaction (Caprara *et al.*, 2003a; Caprara *et al.*, 2003b). Teachers with high levels of self-efficacy beliefs are more likely to be able to promote interpersonal relationships with colleagues which induce and sustain their job satisfaction (Caprara *et al.*, 2006). Teachers' sense of efficacy influences their job satisfaction directly in meeting teachers' intrinsic needs of competence, and indirectly in being conducive performance from which teachers may derive recognition and pride (Ryan and Deci, 2000). The relationship between teachers' self-efficacy and job satisfaction has been found in many countries, so it is likely that academics' perceived sense of efficacy is a source of job satisfaction in the Chinese context. It is also likely that efficacious academics have higher levels of satisfaction than those who doubt their competences.

2.5.2.1.3 Self-actualisation

Goldstein (1934) defined self-actualisation as a driving life force that will ultimately lead to actualise individual capacities as much as possible and determine the path of an individual's life. Maslow (1943) defined self-actualisation to be

the desire for self-fulfillment, namely the tendency for the individual to become actualised in what he is potentially. This tendency might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming (p. 371).

In Maslow's (1954) Hierarchy of Needs, self-actualisation is the top level needs which are termed as growth needs. In the current study, self-actualisation could be explained as the university academics' desire for the full realisation of their potential. Self-actualisation was identified in the Job Characteristics Model (Hackman and Oldham, 1976, 1980) as a moderator of the influence of internal psychological variables on criterion variables, such as job motivation and job satisfaction (Carlson and Mellor, 2004). Tampoe (1994) suggested that the personal motivation of the knowledge workers was based on the value they place upon work. With regard to the university academics, the highly qualified knowledge workers, to pursue intrinsic growth and to exert their full potential were likely to be regarded as important parts in their work. Thus, self-actualisation might play an important role in studying job satisfaction of Chinese university academics.

2.5.2.1.4 Flexibility and Autonomy

In the study of business academics' job satisfaction in Australian universities by Bellamy *et al.* (2003), it was established that flexibility and autonomy were key factors in becoming and remaining an academic. Although the working conditions of academics have deteriorated following the profound changes in Australian universities in recent years, flexibility and autonomy in their work were cited as the important factors in contributing to the retention of academics in their professions. Academics reported that they were attracted to university careers because of the academic valuing of intrinsic motivators such as flexibility and autonomy rather than the external conditions and motivators - salary, facilities, and so on - that were relatively poor in universities.

Academic freedom and institutional autonomy of universities were regarded as the traditional values of higher education, which provided the freedom for academics to pursue their own research interests driven by their disciplines and instruct their teaching through advanced scholarship and without undue interference (Houston *et al.* 2006). Lacy and Sheeham (1997) studied academics' job satisfaction across eight countries and found that the majority of academics were satisfied with the opportunities to pursue their own ideas. From these findings, it could be argued that flexibility and autonomy may influence Chinese academics' job satisfaction.

2.5.2.2 Extrinsic Factors

Extrinsic factors originate from outside the individual and come from the environment, such as work itself, work group, pay, promotion, and teaching and research.

2.5.2.2.1 Work Itself

As shown in previous studies, the most important determinant of overall job satisfaction is an individual's satisfaction with the work they undertake. Academics usually undertake more years of academic study before securing the first post than other members of the work force. Considering the high investment in human capital in terms of time and foregone earning, the type of work undertaken in academia is important for them.

People usually look for a job where they can exercise their skills, have the opportunities to achieve success and see output. Dale *et al.* (1997) and Evans and Lindsay (1996) stated

that employee satisfaction can be enhanced if a job incorporates task significance, autonomy, skill variety, task identity, and feedback about performance. Winter *et al.* (2000) also highlighted some key elements of the quality of academic work life in his study, including job challenge, skill variety, task identity and autonomy. These motivating core job characteristics (Hackman and Oldham, 1980) are arguably enable academics to engage in meaningful work activities such as critical thinking, reflection and collegial interactions associated with important outcomes in terms of job satisfaction, intrinsic motivation and work effectiveness. Locke (1984) found that a job has to fulfill the human and mental needs of the employees, and this in turn will increase morale and motivation leading to improvement of quality and productivity. It could be concluded that work itself may influence Chinese academics' job satisfaction.

2.5.2.2.2 Work Group

Maslow (1970) considered this need as one of the third category in his hierarchy - 'social needs'. In this category, Maslow meant the need for belonging and love that people have to fulfill. When a worker interacts socially and positively with his co-workers, the sense of co-operation may lead to experience satisfaction (Gruneberg, 1981). An isolated job may lead to job dissatisfaction. However, Herzberg stated that supportive colleagues being a hygiene factor does not result in satisfaction but it prevents dissatisfaction. Interpersonal relationships are an important part of job satisfaction. Lawler (1973) found that a job with more positive social outcomes is likely to be more satisfying to the worker. Peer-groups can help in raising an individual's perception about his or her input and

outcome that leads ultimately to satisfaction. The higher the cohesiveness and productivity of the group, the higher the feeling of happiness in the work place (Gilmer, 1966).

The importance of staff interpersonal relationships within teachers' working lives has been highlighted in several studies (Nias, 1985, Nias *et al.*, 1989, Woods, 1990). Evans applied a comparative analysis of research findings from two of her studies in the UK focusing on identifying and explaining the factors that affect job-related attitudes in schoolteachers (Evans, 1997a, 1998) and in academics (Evans and Abbott, 1998), and argued in her research (Evans, 2001) that there are six specific issues which were incorporated into the conception of an 'ideal' job, including interpersonal relations and collegiality. The interpersonal relations involved not only collegial relations but also the relationships among staff, staff and clients, governors and others. Evans found that these kinds of relationship were more prominent among schoolteachers in primary school than among academics in higher education. She also argued that this finding probably reflected the generally more collaborative nature of schoolteachers' working lives in relation to the more isolated nature of academics' working lives. According to Evans, collegiality overlapped with interpersonal relations, but in this case, it specifically referred to the degree and quality of teamwork, co-operative ways of working, consultation and interdependence and support among colleagues. When individuals' perceptions of the level and quality of collegiality met their expectations, they would feel satisfied with the job. Evans (2001) concluded her arguments of schoolteachers' and academics' morale, job

satisfaction and motivation as:

In general, a good match, therefore, is a work context that does not compromise the individual's professionalism. What education professionals evidently want is to be able to practice, unhindered, within a context that is compatible with their needs, expectations, values and ideologies (p. 302).

Other studies also reported the positive relationship between interpersonal relationships with colleagues and teachers' emotional health, as harmonious relationships were regarded as a source of social and emotional support to teachers. When this kind of relationships did not exist, teachers expressed negative feelings for the job and this resulted in their dissatisfaction (Cockburn, 2000; Schwarzer and Greenglass, 1999). Therefore, it could be considered work group as an important factors affecting academics' job satisfaction in this study.

2.5.2.2.3 Pay

Pay seems to be one of the most arguable, critical and influential factors when talking about job satisfaction. This factor has attracted many researchers who have tried to explore its effect. In Maslow's (1954) Needs Theory, pay is the most basic need in the work environment for an employee. Herzberg (1968) stated that pay is a hygiene factor and therefore, it does not motivate but it is necessary to prevent dissatisfaction. He also argued that monetary incentives can work but only in the short term. The Equity Theory (Adams, 1963) postulated that pay satisfaction is the result of social comparison with respect to relevant referents. In other words, pay satisfaction is determined by the fairness with which it is distributed rather than the actual amount of pay.

In a pay satisfaction questionnaire, Orpen and Bonnici (1987) investigated a sample of 101 university instructors from all academic staff at five Australian universities. The researchers found that pay levels, pay benefits, pay raises, and pay structures were related to satisfaction. Ward and Sloane (2000) drew on detailed data from Scottish university academics and reported that gender difference in salary was not significant and the whole sample of respondents was least satisfied with pay. The results showed that Scottish academics compared their pay with a wider group than just other academics when evaluating their pay, which provided the largest influence on reports of job satisfaction. The evidence also indicated that academics whose jobs were predominantly teaching based reported lower levels of satisfaction with pay, which indicated that a stronger research orientation could help academics to be promoted faster and lead to higher salary. The study by Shaw and Gupta (2001) stated that the trend of investigating pay has moved from studying actual pay and people's attitude to it towards concentrating on the precursors of different kinds of pay attributes such as pay satisfaction and perception of pay fairness.

2.5.2.2.4 Promotion

The reward of promotion can be explained by Maslow's (1954) theory of an individual's need for self-esteem and self-actualisation and Herzberg's (1968) theory of a motivator which influences job satisfaction. Promotion is considered to be a factor influencing job satisfaction because it is usually followed by an increase in pay, responsibility, challenge, change in actual tasks, and to some extent a change in work group. Some researchers

identified that the possibility of promotion was linked to teachers' job satisfaction and dissatisfaction (Nias, 1996; Shann, 1998; Dinham and Scott, 1998). Satisfaction with promotional opportunities has been shown to have a direct positive effect on job satisfaction (e.g. Quarles, 1994; Wiley, 1997) and lack of status and promotion can result in employees' job dissatisfaction (Travers and Cooper, 1993).

In a study of Scottish academics, Ward and Sloane (1999) found that attitude and taste variables and variables relating to individual and job characteristics had a significant impact on job satisfaction with promotion prospects. Pay and promotion factors had a close relationship with each other. A perception of being underpaid had a strong negative impact on reports of satisfaction with promotion. Usually, dissatisfaction with pay led to dissatisfaction with promotion prospects; perhaps academics with higher promotion expectations seek to compensate for low payment. According to Rose (2003) and Mullins (1996), both the aspect of promotion and the work benefits are extrinsically linked to the reward that work gives. It can be concluded that the reward structure of pay and promotion may influence job satisfaction.

2.5.2.2.5 Teaching and Research

Traditionally, the role of the university academic has been defined according to the three domains of teaching, research, and administration, with the primary emphasis placed upon the teaching and research aspects (Houston *et al.* 2006). Romainville (1996) stated that universities are the only organisations focused on dual core functions of knowledge

creation and knowledge transmission through the processes of research and teaching.

In the US studies, in a comparison of faculty responses about job satisfaction and perceived fit with job, and work values across technical college instructional divisions, Clark (1999) commented that satisfied faculty are truly motivated and skilled to teach. In the UK, Henkel (2000) reported that despite the changing conditions and increasing workloads in higher education, academics remain committed to their vocation because of the high value placed upon teaching and research. This is consistent with the research findings in Australian universities. Although the working conditions for academics deteriorated, they were attracted to become and remain in academia by intrinsic motivators such as autonomy in teaching and research (Bellamy *et al.*, 2003). With recent changes in higher education in New Zealand, Houston *et al.* (2006) argued that teaching and research remain as the core function in universities and they are closely interdependent. They also noted that an ongoing tension exists between the two particularly in terms of demands on time and variable recognition and rewards. According to Harman (2001) in Australia, academics' workloads have increased from 1977 to 1997 and the time allocated to teaching and research are in tension with each other. As the core roles of university academics are teaching and research, it could be argued that they have a significant impact on academics' job satisfaction.

As the purpose of the current study is to investigate factors impacting on academics' job satisfaction in higher education, previous research studies into job satisfaction in higher

education are identified here.

2.6 Job Satisfaction Research in Higher Education

There may not be as much research on job satisfaction in the educational area as in the industry or the business field. However, with significant changes in higher education worldwide, there has been a growing concern over quality of education and job satisfaction of academics. Researchers believe that highly qualified and motivated academics are crucial elements in the university. International studies have attempted to capture various facets related to academics' job satisfaction.

Many researchers have studied academics' job satisfaction in light of Herzberg's Two-Factor Theory and discussed the effect of intrinsic and extrinsic factors. For example, Hill (1986) employed this theory in explaining academics' job satisfaction in the UK. The evidence showed that sources of academics' job satisfaction derived from intrinsic factors with respect to teaching, scholarly achievements and creativity, and the nature of the work, and sources of dissatisfaction related to extrinsic factors in terms of salary, fringe benefits, administrative features and collegial associations. Hill's study supported Herzberg's view on job satisfaction and he suggested that the model could be successfully applied to academics in higher education institutions.

Many researchers have drawn similar conclusions that although academics were required to work in an increasingly demanding environment, they valued intrinsic factors more

than extrinsic ones. For example, Bellamy *et al.* (2003) found that although the working conditions of academics have deteriorated with the profound changes in higher education in Australia, valuing of intrinsic motivators such as flexibility and autonomy in teaching and research stand out as the most important factors for becoming and remaining in the academia system. In New Zealand, academics motivated by core academic and disciplinary interests were regarded as doing complex work in an increasingly demanding environment for increased performance accountability, measurable outputs and workloads. It was established that academics had low levels of job satisfaction with extrinsic rewards from their work such as salary, opportunities for advancement and recognition received for good work. They had high levels of job satisfaction with intrinsic aspects such as flexibility, amount of responsibility and variety in their jobs (Houston *et al.*, 2006). Ward and Sloane (1999) researched the Scottish academic profession's overall job satisfaction as well as promotion prospects, job security and salary. They reported that levels of overall job satisfaction among academics were high, though not with pay and promotion. The evidence suggested that Scottish academics had higher levels of satisfaction with non-pecuniary aspects of work than pecuniary ones.

Many other studies, however, found contrary results to Herzberg's view on job satisfaction. Pearson and Seiler (1983) researched academics' job satisfaction with the environment and reported that academics had high levels of satisfaction with their work environment and had low levels of satisfaction with job related rewards, such as pay, fringe benefits and performance criteria. They also commented that academics'

perceptions of job satisfaction were highly related to context factors, since higher order needs tend to dominate in university setting. Moses (1986) supported the notion of context elements of job and found that academics were dissatisfied with the undervaluing of teaching activities in opportunities for promotion. She also commented that prestigious and autonomous work could fulfill academics' higher order needs (e.g. self-esteem, self-actualisation) and bring them great satisfaction, while well-paid work provided satisfaction with lower order needs. Lacy and Sheehan (1997) investigated university academics' job satisfaction across eight countries. They found that both content related and context related factors could induce both job satisfaction and dissatisfaction, which is contrary to the Two-Factor Theory. The results showed that across eight countries academics were generally satisfied with relationships with colleagues, the opportunity to pursue their own ideas, job security and their general situation. Ssesanga and Garrett (2005) examined Herzberg's model of job satisfaction in Uganda and suggested that intrinsic and extrinsic factors could induce academics' job satisfaction and dissatisfaction respectively. It was established that satisfaction factors derived from intrinsic facets of teaching, co-worker behaviour and supervision, while dissatisfaction factors were largely extrinsic factors with respect to remuneration, governance, research, promotion and working environment. This study is important to note as it was based in a developing country. Since China is the biggest developing country in the world, maybe we can expect that Chinese academics may have similar attitudes to their job.

With regard to the academic job satisfaction research in China, there are only a handful of

master level studies can be found in wanfang database in Chinese (wanfangdata.com.cn). All these studies reported the similar results that intrinsic factors can be more likely to evoke university academics' job satisfaction rather than extrinsic ones. For example, Wang and Cai (2005) studied 442 academics in four universities in TangShan and concluded that academics had high level of job satisfaction with self-esteem in terms of the passion to the job, personal accomplishment in the work, the recognition and respect in society and the increased social status in recent years, and had the lowest level of satisfaction with pay. In Zhang's (2006) study of academics in ShanXi University, the findings showed that sources of job satisfaction related to self-actualisation, flexibility and autonomy and relationships with colleagues, and sources of job dissatisfaction derived from promotion. Xie (2006) researched 288 academics in BaoTou Light Industry Vocational and Technical College and reported that academics were satisfied with work itself related aspects, such as work challenges, work responsibilities, work autonomy, opportunities to use potential ability, creativity, and ranked flexibility and autonomy as the highest job satisfaction factor. Pay and promotion were reported to cause academics' job dissatisfaction.

The lack of available materials in Chinese academics' job satisfaction research might be attributed to the fact that there was short of tradition for educational management research and it still lagged behind those abroad. This kind of research has originally introduced to China by means of transplanting the successful business management experience abroad (Yang, 2007). In most Chinese higher education institutions, there is no separate

educational management subject area and it is a discipline belonging to management study. Only in normal universities or colleges, it is made to belong to educational science and built into such organizational systems as education department and educational science department. In this way, the educational management studies may be paid less attention to. Another explanation might be related to the short of electronic database in China. With the higher education changes in recent years, the investment from government has improved universities' facilities and equipments, but the comprehensive database is still under construction, which may affect the search for the available materials in this study.

Viewing from the international studies on academics' job satisfaction, it could be argued that it is produced, perceived and coped with differently in various social contexts. As Cherniss (1995) pointed out 'People can make their lives better or worse but what they think, how they feel and what they do are strongly shaped by the social contexts in which they live' (p. 166). Dinham and Scott (1998, 2000) also argued that social context seems to be the most powerful predictor of teachers' overall job satisfaction. As no higher education institutions in the world can be immune from the effects of changes and transformation, there is a clear need to explore academics' job satisfaction in the developing world context. What little research had been done in the developing world was based on theoretical assumptions that had been developed from research in developed countries (Garrett, 1999). Especially in China, factors affecting academics' job satisfaction is a little understood area with the profound higher educational changes in

recent years, thus, such research is necessary.

2.7 The Consequences of the Job Satisfaction

In recent years, researchers (e.g. Dinham and Scott, 1998, 2000; Scott *et al.*, 2001, 2003) have stated that many factors cause low teacher job satisfaction, such as centralized education systems, relentlessly imposed changes, lack of job autonomy, reduced resources, constant media criticism and moderate salary. The consequences of these trends may include increasing staff turnover, reduced ability to meet students' needs, physical and psychological problems, low productivity and high level of job related stress (Farber, 1991; Troman and Woods, 2000). Most importantly, though, teacher dissatisfaction appears to be a prominent factor in teachers leaving the profession in many countries (Huberman, 1993; Woods *et al.*, 1997). Recent studies carried out in a number of countries have drawn attention to the consequences of job satisfaction (Hargreaves, 1994; Naylor, 2001). Many behaviours and job related stresses have been taken to be the results of job satisfaction and dissatisfaction. These effects usually include variables such as staff turnover and stress.

2.7.1 Staff Turnover

According to Gruenberg (1981), there seems to be a relationship between occupational change or turnover and job satisfaction. Generally speaking, staff turnover suggests individuals' negative attitudes to the organisation. A high staff turnover rate will lead to a significant cost to an organisation in terms of lost money and time spent on recruiting and

training the new employees. On the other hand, staff turnover will lead an organisation to low morale, potential disruption of the programmes and projects, disordered development. As far as academics are concerned, one of the consequences of job turnover among academics, as reported by Becker (1969), was time, money and attention being devoted to recruiting new academics to the classroom. Muncrief (1979) stated that since teacher training is a costly investment, if graduates do not remain in the profession, there is a need to take steps to increase the tenure of academics who are both successful and satisfied with teaching.

Although there are many reasons for an individual to leave the job, lack of job satisfaction is considered as one of the most important causes. Carrell (1976) examined the relationship between job satisfaction and dissatisfaction and suggested that the relationships of satisfaction to training, absenteeism, and turnover were important. Branch (1998) noted that money was not the only factor that makes employees happy and stay in an organisation, but other things like job satisfaction and the ability to balance life and work were also important. Ingersoll (2003) drew the conclusion that high rates of teacher turnover had more to do with teachers' job satisfaction and teachers pursuing other jobs, and little to do with teacher retirement because of a graying workforce. In view of the importance of qualified teachers as a prerequisite for school effectiveness, there seems to be a need to investigate the relationship between job satisfaction and academic turnover.

2.7.2 Stress

Many researchers, for example Mateson and Ivancevich (1987), have suggested that dissatisfaction with a job is a consequence, or manifestation of stress. Work related stress and job dissatisfaction are of growing concern because they appear to be implications of lowered physical and emotional health of the employees. Wall, Clegg and Jackson (1978) argued that poor mental health has closer relationships with low job satisfaction than it is with other job features, and that job satisfaction and mental health is an intervening state in the causal chain. They also suggested that job dissatisfaction has a significant correlation with high rates of psychological distress, anxiety, depression, psychosomatic symptoms, and coronary heart disease. As far as academics are concerned, Dua (1994) researched 1028 university staff in Australia and found a significant correlation between job satisfaction and stress in terms of both physical and emotional well-being. In general, the findings indicated that high job stress and high job dissatisfaction were associated with low physical and emotional health. Thus, research into academics' job satisfaction is becoming more and more important because not only are an increasing number of academics leaving the profession but also dissatisfaction is associated with a number of problems mentioned above.

2.8 Conclusion

This chapter has dealt with the empirical literature on job satisfaction. Before moving on to create a conceptual framework for this study, it is important to summarise the literature review. The concept of job satisfaction has been introduced, and related theories have

been examined, in order to provide a framework for the research. A summary of these theories can be seen in the Table 2.6. The theories have emphasized the needs, expectancy and value of employees. It has been argued that job satisfaction theories have significant correlation with job satisfaction related factors. As academic job satisfaction is produced, perceived and coped with differently in various social contexts, this study explores the idea that the influences upon it are culture related. Thus it is important to ask what factors impact on university academics' job satisfaction in the Chinese context and whether Western organisational theories fit the Chinese culture. At this point, it is useful to introduce a widely used model (shown in Figure 2.7) which will function as a basis for this research.

Table 2.6: A summary of job satisfaction related theories

Maslow’s Hierarchy of Needs (1943)	Five levels in hierarchy. Normally, people proceed to make predictable climb from bottom to top.
Herzberg’s Two Factor Theory (1968)	Two different factors affect motivation – hygiene and motivators.
Equity Theory (Adams 1965)	People assess the ratio of their inputs to their outcomes and try to reduce inequity.
Expectancy Theory (Vroom 1964, Porter and Lawler 1973)	Motivation increases if both expectations of work outcomes and rewards increase.

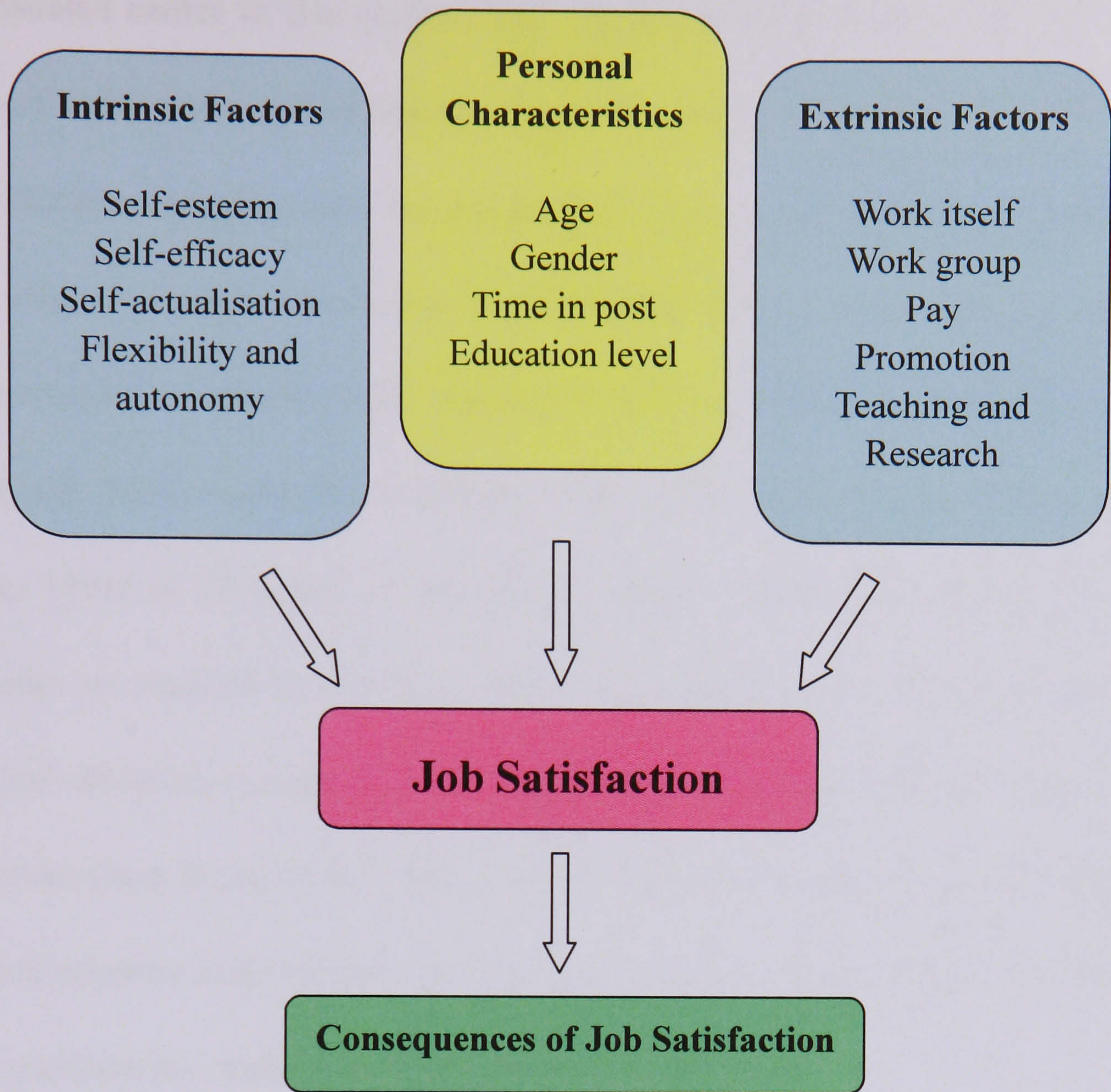


Figure 2.7: Conceptual framework of this study

It has been pointed out that various personal characteristics (see yellow part in Figure 2.7) can be associated with job satisfaction, and age, gender, education and time in post are among the most investigated. As it has been shown that different researchers have drawn differing results in different cultural contexts, it could be argued that personal characteristics may impact on academics' perceptions of job satisfaction in the Chinese culture. So it is important to examine whether there is significant correlation between each of the personal characteristics and academic job satisfaction.

The association between job satisfaction theories and work related factors was

demonstrated earlier in this chapter. The correlation table (Table 2.5) has shown that levels of individual's job satisfaction were determined by their perceptions of work related factors, including intrinsic and extrinsic factors (see blue part in Figure 2.7). A recent attempt to explain the factors which determine job satisfaction has been introduced in this chapter in relation to the teaching situation generally and academics' situation specifically. Many researchers (Bellamy *et al.*, 2003; Houston *et al.*, 2006; Ward and Sloane, 1999) in developed countries have drawn similar conclusions that although academics are required to work in an increasingly demanding environment in the process of higher education changes, intrinsic factors seem more important than extrinsic factors to motivate them in their work. Thus it will be important to ask in this study whether it is the same situation in the Chinese cultural context and what intrinsic and extrinsic factors affect academic job satisfaction among Chinese academics.

The chapter finishes with a consideration of the consequences of job satisfaction (see green part in Figure 2.7). It has been argued that declining job satisfaction may lead to increasing staff turnover, reduced ability to meet students' needs, physical and psychological problems and high level of job related stress. It made the case that research on academics' job satisfaction became more and more important, especially in the process of higher education changes in recent years, and it is crucial in identifying the areas in need for improvement.

So far, this chapter has covered the main issues of empirical part of job satisfaction. It has

indicated the reason why academics' job satisfaction research is important in the Chinese cultural context. So it is important to examine what factors impact on academics' job satisfaction in China. This will be discussed in the next chapter.

CHAPTER 3 - Methodology

3.1 Introduction

The previous chapters have explained the context and conceptual background to the study; this chapter will focus on methodological issues and the procedures used for data collection. It offers an exploration of the concepts underpinning research design, sampling, instruments of data collection, data analysis techniques, validity and reliability and ethical issues of the study. As a result of these considerations, a mixed methods approach which comprised semi-structured interview and self-completion questionnaire was used in this study.

3.2 Research Questions

It is recommended (Creswell, 1994) that research questions should contain one or two main questions which represent a research enquiry into the issue being examined in the study in its most general form, followed by sub-questions that narrow down the focus of the study. Having identified the purpose of the research in Chapter 1, it is now important to restate the research questions for this study.

The following question emerges as the focus of this research:

What factors impact on the job satisfaction of university academics in China?

The following sub-questions need to be answered in order to answer this main question:

✧ Does job satisfaction have significant correlations with personal characteristic

variables?

- ✧ What intrinsic factors affect academic job satisfaction?
- ✧ What extrinsic factors affect academic job satisfaction?
- ✧ What are consequences of academic job satisfaction?
- ✧ To what extent can Western models of job satisfaction be applied to the Chinese context?

3.3 Research Design

A research design provides a framework which underpins the whole project. It is usually considered as a structure or guide to show how all of the major parts of the project – data, methods, measures – work together to try to provide answers to specific research questions (Trochim, 2006). In social science research, there are a wide variety of research designs, such as experimental, cross-sectional or social survey, longitudinal and case study design (Bryman, 2004). This study followed a cross-sectional design, due to the limitations of some other research designs such as the deliberate control and manipulation of conditions of the study in an experimental design; the time and cost involved in a longitudinal design; and the limited generalisability of the results from a case study (Bryman, 2004).

The aims of this research are to:

- 1) investigate the relationships between the independent variables (gender, age, time in post, education level, post and subject areas) and dependent variables (job satisfaction

factors) through the use of statistical analysis;

2) identify intrinsic and extrinsic factors affecting university academics' job satisfaction in the Chinese context;

3) find what effect job satisfaction has on university academics; and

4) test Western models of job satisfaction in the Chinese context.

With all these concerns, the cross-sectional design is the most appropriate design used in current research. As Babbie (1998) supported this research design,

Data are collected at one point in time from a sample selected to describe some larger population at that time. Such a survey can be used not only for purpose of description, but also for determination of relationship between variables at the time of study (p. 56).

3.4 Consideration of the Research Methodology

3.4.1 Overall Research Paradigm

Recently, there has been an intense debate about the research paradigms in social science.

Education researchers have witnessed a great divide between two prevailing research paradigms: positivist and interpretivist (Foster, 1996) and the quantitative and qualitative

research approaches which are often associated with them. Purists tend to focus on the

differences between the quantitative and qualitative research rather than on the

similarities. For purists, the assumptions associated with research paradigms are

incompatible with each other, in respect of the nature of knowledge (ontology) and the

means to generate the knowledge (epistemology); as argued by Smith (1983) and Smith

and Heshusius (1986), quantitative and qualitative approaches cannot and should not be

mixed. In the following section, research paradigms including positivist, interpretivist and

pragmatist will be explained.

Positivist research paradigm

The assumptions advocated by quantitative purists (Ayer, 1959; Schrag, 1992; Maxwell and Delaney, 2004) are commonly called positivist philosophies. According to Fielding and Fielding (1986), 'the central tenets of positivist research paradigm express a conception of scientific method modeled on the natural sciences' (p.18). Positivists claim that social science inquiry should be objective and the methods are objective, which indicate that time and context free generalisations are desirable and possible (Nagel, 1986). According to this point of view, educational researchers should be bias free, uninvolved in the research and measure a set of variables to test or justify the hypothesis. However, as noted by Onwuegbuzie and Leech (2005a), positivists disregard the fact that many research decisions are made throughout the research process before the objective verification take place and that researchers are members of different social groups. Moreover, although the social scientific outcomes generated by statistical measurement are more likely to be reliable and relatively objective, they may be insensitive to individual differences (Ernest, 1994).

Interpretivist research paradigm

The assumptions advocated by qualitative purists (Schwandt, 2000) are commonly called interpretivist or constructivist philosophies. Interpretivists share a view that the subject matter of the social sciences is fundamentally different from that of the natural sciences

(Bryman, 2004). The interpretivist paradigm is concerned with the understanding of social action (Bryman, 2004) and ‘emphasizes the use of case study, largely qualitative forms of enquiry and triangulation’ (Ernest, 1994, p.24). Interpretivists contend that social research is value-bound and that time and context free generalizations are neither desirable nor possible (Guba, 1990). According to this point of view, educational researchers should be subjective in relation to reality and do research focused on particular individuals or contexts. This arguably has the result that many qualitative methods of analysis ‘often remain private and unavailable for public inspection’ (Constas, 1992, p. 254) and that the findings have limited generalisability to a wider population.

Pragmatist research paradigm

Considering the characteristics of both positivist and interpretivist research approaches, a combined research paradigm (mixed methods research) was chosen in the current research. It is identified by Johnson and Onwuegbuzie (2004) as the third research paradigm in educational research. This paradigm is often associated with pragmatist philosophies. Pragmatists assert that a false dichotomy exists between quantitative and qualitative research approaches (Newman and Benz, 1998) and advocate integrating both approaches in a single study (Creswell, 1994). The goal of mixed methods research is not to replace either of the traditional approaches, but rather to utilize the strengths of both in a single study to draw a better understanding of the social phenomenon (Johnson and Onwuegbuzie 2004). Pragmatist philosophy, as a third research paradigm, can help bridge the division between quantitative and qualitative approaches (Onwuegbuzie and Leech,

2005a) and help social science researchers to use a range of techniques in practice.

In the current study, the pragmatist research paradigm arguably helped the researcher, firstly to use both individual level and group level of analysis to describe the phenomenon in question, secondly to look at whether the existing Western theories of job satisfaction were applicable to the Chinese context and finally to acquire a greater understanding of university academics' attitudes to their work in the context of higher education change.

3.4.1.1 Epistemological Issues

Epistemology represents one's theory of knowledge and therefore concerns the principles and rules by which one decides whether and how social phenomena can be known, and how knowledge can be demonstrated (Mason, 2002, p. 16).

Bryman (2004) states that a particular central issue of epistemology is 'the question of whether the social world can and should be studied according to the same principles, procedures, and ethos as the natural sciences' (p.11). Epistemological differences between the two major paradigms are based on the relationship between the researcher and the objective of study (Onwuegbuzie and Leech, 2005b). Positivists contend that the objective world exists independent from human perceptions and that researchers should be separated from the object of study; while interpretivists assert that these two entities depend on each other and that researchers should make full use of the advantages to understand the phenomena (Onwuegbuzie and Leech, 2005b).

In the current study, the researcher agrees that social science research is different from natural sciences with regard to the subject often being either human beings or institutions

(Bryman, 2004). It is also believed that the two paradigms depend on each other and represent an interactive continuum. Even though there is a substantial debate between the two paradigms, there are many more similarities than there are differences between them (Onwuegbuzie and Leech, 2005b). Therefore, it is reasonable for social researchers to adapt both orientations, rather than representing bi-polar opposites (Newman and Benz, 1998).

3.4.1.2 Theory and Research

Deductive and inductive approaches are two typical strategies used to represent the relationship between theory and social science research. According to Bryman (2004),

...theory is something that guides and influences the collection and analysis of data. In other words, research is done in order to answer questions posed by theoretical considerations (p. 8).

Deductive strategy linking data and theory is associated with a quantitative research approach, which tends to deduce hypotheses from the existing theory and then guide the process of data collection in order to test the hypotheses. Inductive strategy is typically associated with a qualitative research approach, which tends to drive theoretical ideas out of the collection and the analysis of the detailed and rich data (Bryman, 2004).

In the current study, a mixed methods research approach is used, it employs integrated deductive and inductive strategies to achieve both a deep investigation of academics' attitudes to their job and testing of existing Western job satisfaction theory in the Chinese context.

3.4.2 Quantitative and Qualitative Approach

As research paradigms are often associated with quantitative and qualitative research approaches, there is a need to look at them in this study. Quantitative methodology is the systematic scientific investigation of quantitative properties and phenomena. (Bryman, 1984). It depicts reality in terms of variables and relationships between them and rests on the measurement of prestructured data (Punch, 1998). Quantitative approaches have well developed methods for data analysis, and the unidimensional and less variable methods make it more easily replicable (Punch, 1998). Qualitative methodology, on the other hand, usually emphasizes words rather than quantification in the collection and analysis of data (Bryman, 2004). It is sensitive to context and process in order to gain deep understanding of the complexity of social life (Punch, 1998). Its methods are more multi-dimensional, more diverse and less replicable than quantitative methods (Bryman, 2004). As Sieber (1973) noted, these two approaches represent two different research cultures, ‘one professing the superiority of “deep, rich observational data” and the other the virtues of “hard, generalisable”...data’ (p.1335). The strengths and weaknesses of quantitative and qualitative approaches could be viewed in the following Table 3.1.

Table 3.1: An overview of the strengths and weaknesses of quantitative and qualitative approaches (Johnson and Onwuegbuzie, 2004; Punch, 1998; Bryman, 2004)

Approaches	Strengths	Weaknesses
Quantitative	<ol style="list-style-type: none">1. Tests and validates existing theories2. Provides precise and numerical data3. Standardized data collection and statistical data analysis are less time consuming than....4. Provides overall descriptions of situations or phenomena5. Enables standardized and objective comparisons of the results6. Research findings are relatively independent from researcher7. Research findings are easily replicated8. Useful for studying large population.	<ol style="list-style-type: none">1. May miss out some relevant phenomena2. May not apply to complex situations3. Results produced may be too abstract and general.
Qualitative	<ol style="list-style-type: none">1. Rich, deep information can be used to generate theory2. Useful for describing complex phenomena3. Useful for studying a limited number of case in-depth4. Provides individual case information5. Can be used to study naturally occurring real-life situations6. Can be used to study the lived experience of people7. Describes rich detail phenomena in specific contexts and settings8. Enables cross case comparisons and analysis9. Can study dynamic processes10. Researcher can be responsive to changes during the conduct of the study.	<ol style="list-style-type: none">1. May be difficult to test hypotheses and theories2. Data collection and data analysis takes more time compared to quantitative approach3. Results produced may not generalize to other contexts and settings4. Results may be easily influenced by the researcher's personal biases.

3.4.2.1 Comparison of Quantitative and Qualitative Approaches

In the paradigm wars, the purists emphasized the great differences between quantitative and qualitative approaches. Hammersley (1992) presents typical dichotomies between the two approaches, which include:

- Qualitative versus quantitative data
- Meanings versus behavior
- An inductive versus a deductive approach
- Natural versus artificial
- An identification of cultural patterns as against seeking scientific laws

Indeed,

The differences which researchers feel exist between qualitative and quantitative approaches (whether or not these distinctions are logical ones) have profound effects on the focus and conduct of research projects, especially the choice of method (Brannen, 1992, p.5).

However, as noted by Newman and Benz (1998), the two approaches represent an interactive continuum rather than opposite positions. Although the differences between the two approaches are substantial, there are also many similarities between them.

First of all, both quantitative and qualitative researchers address research questions through data collection and analysis. As Sechrest and Sidani (1995) noted, both approaches ‘describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did’ (p. 78).

Another similarity between the two approaches is that both methodologies use analytical techniques to acquire the maximal meaning from the data, either by numbers or by words (Dzurec and Abraham, 1993). Quantitative researchers utilize statistical techniques and generalisations to interpret the meanings of data, while qualitative researchers use phenomenological techniques by presenting rich, deep data to discover meanings. Both types of inquirers aim to explore the complex relationships existing in the social sciences world (Dzurec and Abraham, 1993).

Further similarity was noted by Sandelowski (1986); most researchers attempt to minimize potential confirmation biases and other sources of invalidity in their study. In other words, researchers use a range of techniques to verify their data. Such techniques

include triangulation, prolonged engagement, making contrasts / comparisons, pilot study, peer review, replicating the findings, and acquiring feedback from participants (Creswell, 1998).

Additionally, both researchers see data-reduction techniques as an important procedure in the data analysis process. Quantitative researchers conduct factor analysis or cluster analysis and qualitative researchers use thematic analysis to reduce the dimensionality of the data (Onwuegbuzie, 2003).

As there are so many similarities between the quantitative and qualitative approaches, it is considered helpful in the current research to mix them as appropriate to the research context. As Dzurec and Abraham (1993) suggested, ‘the objectives, scope, and nature of inquiry are consistent across methods and across paradigms’ (p.75). Therefore, methodological pluralism should be promoted in educational research as it enables researchers to conduct more effective research (Johnson and Onwuegbuzie, 2004).

3.4.3 Mixed Methods

In mixed methods research, researchers mix or combine quantitative and qualitative research techniques, approaches or concepts in a single study. As mentioned above, mixed methods research is sometimes treated as a third research paradigm in educational research, following a pragmatist philosophy. Mixed methods research arguably offers the best chance to answer many research questions and combinations of research questions

(Johnson and Onwuegbuzie, 2004).

3.4.3.1 Justification of Mixed Methods

The general level of justification of mixed methods is to focus on the strengths and to compensate for the weaknesses of each approach. With regard to particular situations, the specific reasons of using mixed methods research need to be considered in terms of practical circumstances and context of the research.

Greene *et al.* (1989) identify five major purposes or rationales for conducting mixed methods research.

(a) Triangulation - Triangulation offers multiple methods of examining the same social phenomena. 'The technique aims to enrich the findings of research by studying the subject from different points of view' (Denscombe, 2003, p. 132). Therefore, the use of more than one method acts as a means to achieve a more convincing result. In this study, interviews and questionnaires are used as methods of producing different kinds of data on the same topic: what factors impact on university academics' job satisfaction. By using interviews and questionnaires, we can look at the findings from different perspectives which are helpful to the researcher to establish the credibility of the responses and enhance the validity of the data.

Triangulation is also achieved in this study in a number of ways identified by Denzin (1970):

1. Time triangulation is used in terms of collecting data from different groups at one point in time.
2. Space triangulation is used to overcome the limitations of the study conducted in the Chinese culture. The researcher involves the Western job satisfaction theories which are tested in the Chinese culture.
3. Combined levels of triangulation are reflected by three levels of analysis adopted by the researcher in this study: individual level, group level and society level.
4. Theoretical triangulation is used in the study. The researcher uses multiple perspectives to discuss the findings and analyse data.
5. Methodological triangulation is used as well. As mentioned previously, the researcher uses more than one method to collect data (interviews and questionnaires) on the same objective of the study.

(b) Complementarity - The goal of complementarity is to enhance and clarify results from one method with results from another. In this study, a combination includes interview data related to participants' attitudes to the job, along with the statistical measurement of the levels of job satisfaction. A qualitative study may include a quantitative dimension to help researchers to determine what to investigate in-depth, and a quantitative study may enhance the generalizability of qualitative findings.

(c) Initiation – Mixed methods research provides the opportunity to discover potential paradoxes and contradictions emerging from the data. The different angles of observation

from various methods allow the researcher to recast the questions and results from one method with questions or results from another method (Rossman and Wilson, 1985).

(d) Development - In mixed methods research, the researcher can use the findings from one method to help guide the development of the next phase of research. In the current study, the results from interviews help the researcher to develop and inform questions in the questionnaire. In this way, the questionnaire can be designed in response to a wider range of considerations with shared views raised by the interviewees.

(e) Expansion – By involving a mixed methods approach, the researcher can expand the breadth and depth of research to include various inquiries, because certain methods can best address particular components of the research questions. In the current study, it may be important to measure correlations between personal characteristics and job satisfaction factors through questionnaire analysis. Meanwhile, it may also be useful to measure the level of job satisfaction by standardized analysis of job related factors, whereas academics' perceptions of job satisfaction may be better understood through participant interviews. As such, pragmatic researchers have the chance to investigate both macro and micro levels of a research issue (Onwuegbuzie, 2003).

Furthermore, Currall and Towler (2003) state some advantages in the diversity of methods. First, it is beneficial to the field because it mirrors the variety of research questions. For example, this research ranges from investigating intrinsic factors of job satisfaction to

identifying extrinsic factors of job satisfaction. Second, diversity of research methods is advantageous because it draws on numerous theoretical paradigms, including political, economics, sociology and psychological. Third, the research is characterized by investigations that involve multiple levels of analysis including individual, group or organisation.

In addition, Smith (1975) examined two of the advantages of the mixed methods approach in social research. First, although the single observation in fields yields sufficient and unambiguous information on selected phenomena, it provides a limited view of the complexity of human behaviour and of situations in which human beings interact. A mixed methods approach can help the researcher achieve confidence in the outcomes of the research when different methods of data collection yield substantially the same results. Just as McDonough and McDonough (1997) stated,

If data collected through different methods converge, confidence in the results is generated. In fact, combining the qualitative and quantitative methods allows the opportunity of greater credibility and greater plausibility of interpretation (p. 71).

Second, it is argued that the use of mixed methods approach can help to overcome the problem of ‘methodboundedness’. Mixed methods may utilize either normative or interpretive technique and can use both of these methods in combination. Despite so many advantages, attention has been drawn to potential problems in the mixed methods approach.

3.4.3.2 Potential Problems of Mixed Methods

In the social science field, mixed methods research has moved forward a great deal in

recent years. In addition to the strengths of this approach, potential problems relating to applying it in research also need to be taken into consideration. These can be categorized into two aspects: philosophical and practical.

From the philosophical perspective, methodological purists assert that one should always work from either a qualitative or a quantitative paradigm. They advocate the incompatibility thesis (Howe, 1988), which assumes that both of the traditional paradigms, including their associated methods, cannot and should not be mixed. In this way, both purists have the potential to cause problems for the pragmatist in combining the methods. Although many qualitative researchers and quantitative researchers have now reached basic agreement on several major points of earlier philosophical dispute (e.g. Reichardt and Rallis, 1994, Phillips and Burbules, 2000), Bryman (2007) still questions whether the fact that the quantitative and qualitative findings are genuinely combined and how far the two approaches can be integrated.

At a practical level, there may be some barriers to the application of mixed methods research. The first problem to be taken into consideration is that the structure of the study may impede the integration of methods. For example, when the original research design is from a quantitative position, it is difficult to add qualitative (Bryman, 2007). Another problem is raised from the specificities of the researchers. Many researchers have specialized skills in either quantitative or qualitative research, while mixed methods research requires knowledge and skill in two areas of inquiry (Bryman, 2007). A further

problem is that mixed methods research tends to involve higher costs than single method research, with regard to time needed for the data collection and analysis as well as cost of materials.

3.5 An Overview of Job Satisfaction Research Methods

The major objective of data collection in this study was to elicit information about university academics’ job satisfaction. There was no strict method for data collection as previous researches on this subject has been carried out in different cultural contexts and each method has offered unique advantages and disadvantages. A brief overview of the data collection methods used by job satisfaction researchers is presented in the following Table 3.2.

Table 3.2: An overview of data collection methods by job satisfaction researchers in education

Researchers	Data Collection Method
Oshagbemi (1997, 1999, 2000)	Questionnaire
Mercer (1996, 1997)	Interview
Evans (1997a, 1998, 2001)	Interview
Lacy and Sheehan (1997)	Questionnaire
Ward and Sloane (1999)	Questionnaire
Dinham and Scott (1998, 2000)	Questionnaire
Egbule (2003)	Questionnaire
Bellamy <i>et al.</i> (2003)	Questionnaire
Zembylas and Papanastasiou (2004, 2006)	Questionnaire Interview
Ssesanga and Garrett (2005)	Questionnaire Interview
Houston <i>et al.</i> (2006)	Questionnaire Case study
Rhodes <i>et al.</i> (2007)	Questionnaire Interview

Table 3.2 revealed that some researchers employed only one data collection method, while others employed more than one. Interview and questionnaire were the most frequently used data collection techniques. It also showed that only Houston *et al.* (2006) used a case study methodology. Reasons why a case study was not used in this study are: first, a case study can only generate limited results and it is not statistically significant because it is just one example; second, Houston *et al.* (2006) employed a longitudinal research design which is not suitable for this study because of the time and cost involved. Third, case study method is rarely used for job satisfaction research. ‘Data collection should be rigorously restricted to what is necessary for meeting the requirement imposed by the research design’ (Bogdan and Biklen, 1998, p. 52). In that case study was rejected. It was decided that this study would combine the two most common methods from other research, interviews and questionnaires in a mixed method design. It was felt that this would best fit the style of the research questions. In order to triangulate the interview findings, questionnaires were used to provide the possibility of greater contextual understanding and cross valid the qualitative data.

It could be argued that a mixed methods strategy might yield greater information than can be achieved through a single method. On one hand, the data obtained from participant interviews can be rich in detail about interaction with participants. On the other hand, the standardized measure of variables via a quantitative survey can test hypotheses and state precisely the relationship between variables by using statistical inference techniques. Just as McCall and Bobko (1990) illustrated, using both qualitative and quantitative methods

is the accomplishment of both *discovery* and *justification* within a single research project; a combination of two methods can give researcher a greater faith of findings and make greater contributions to the field. It is therefore proposed to combine two methods into a coherent research study. Figure 3.1 shows the sequence and the inter-linking of different data collection tools used in this study. Both instruments will be explained in detail in the next section.

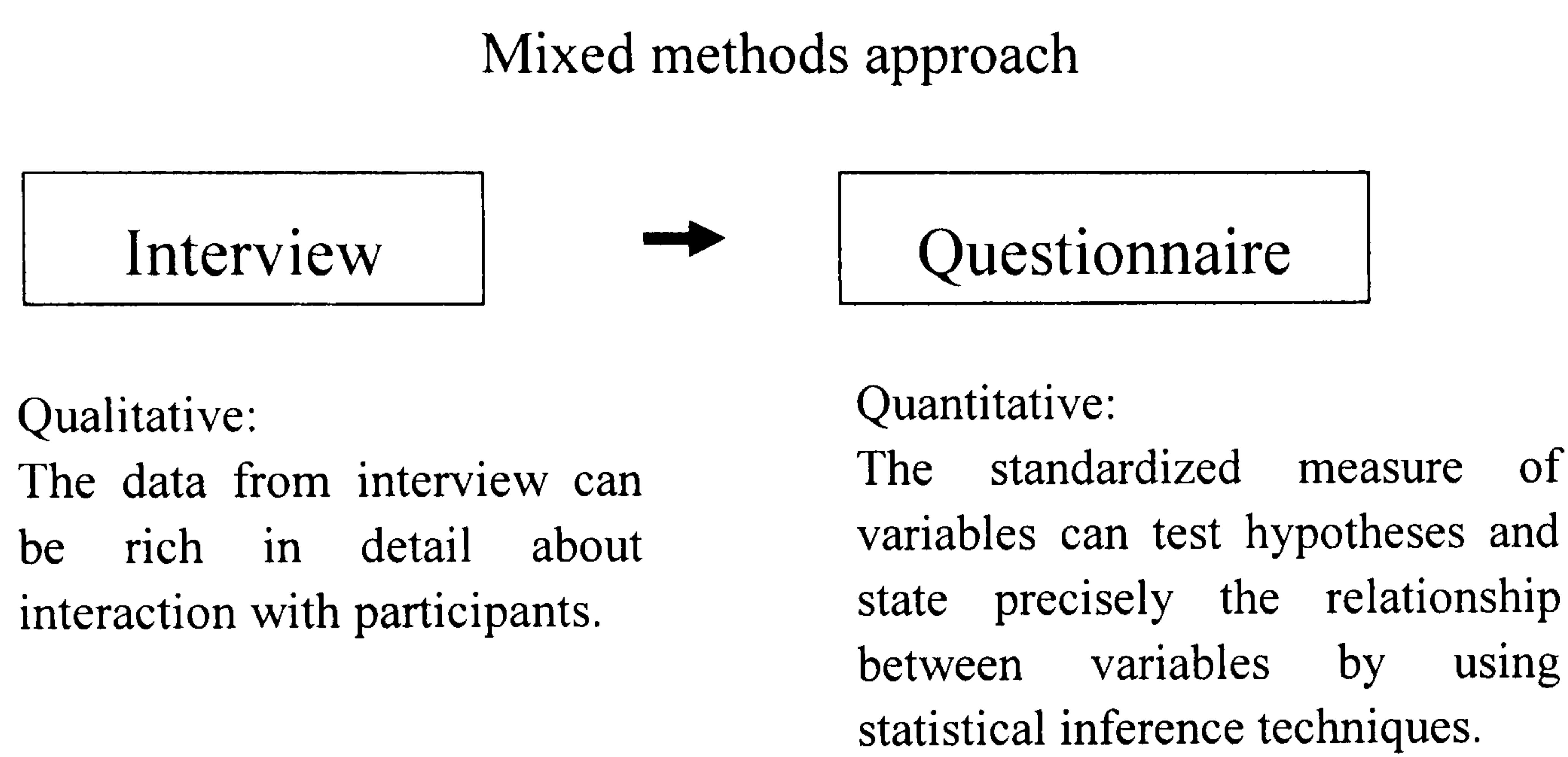


Figure 3.1: Diagram of the mixed methods approach used in this study

3.6 Instruments of Data Collection

Two research instruments were used sequentially to answer research questions: a semi-structured interview and a self-completion questionnaire. The semi-structured interview was designed to investigate individual academics’ attitudes and feelings to the job. The questionnaire was used to collect data on the factors impacting academics’ job satisfaction. The interview question sheet is attached as Appendix 1, a sample of transcription and translation is in Appendix 2, and the questionnaire is in Appendix 3.

3.6.1 Sampling

Sampling becomes one of the pivotal components of any research. The significance of sampling derives from the fact that the precision of conducting the sampling procedures determines the generalisation of research findings (Nachmias and Nachmias, 1996). Although some researchers (Bryman, 2004) focus on making the sample representative of the population from which it is selected, there is no clear determination of sample size. As noted by Kemper *et al.* (2003),

Decisions about samples - both sample size and sampling strategies - depends on prior decisions with regard to questions asked, instruments / methods chosen, and resources available (p. 277).

Both the interview and questionnaire followed convenience and snowball sampling techniques. There were some practical considerations for choosing the sampling technique for this study. First of all, the population for the study was all university academics in China. This was obviously a very large and widely dispersed population. Second, it was not feasible to acquire measures of the whole population due to the practical consideration of expense, time and accessibility. Third, in China, it was not available to use random sampling technique, because the contact details of all university academics were not available.

‘A convenience sample is one that is simple available to the researcher by virtue of its accessibility’ (Bryman, 2004, p.100). Snowball sampling is a form of convenience sampling. In the current study, the researcher began by making contacts with some

academics (supervisors of the researcher's former classmates) who met the criteria for the study and then used them to contact others who were relevant to the research criteria (Bryman, 2004). With convenience and snowball sampling, it is arguable whether they may or may not represent the population well. With random sampling, each unit has an equal probability to be selected and the sample is representative of the whole population, as spoken previously in the current study, circumstances made it impossible to do this; although it may have arguably increased reliability. As Becker (1963) commented, snowball sampling was the only possible one when there is no accessible sampling frame for the population from which the sample is to be taken, or it is difficult to create such a sampling frame. In addition, there are some advantages in using these methods. On one hand, they can generate a high response rate, on the other hand,

These methods use insider knowledge to maximize the chance that the units included in the final sample are strong (highly appropriate) cases to include in the study (Kemper et al., 2003, p. 283).

3.6.1.1 Interview Sampling

The interviews were conducted in North University in China between September and November 2006. Fourteen academics (some of them - supervisors of the researcher's former classmates) voluntarily answered the interview questions in Chinese, which were audio recorded and subsequently transcribed and translated into English. Table 3.3 shows the general demographic characteristics of the interview participants: nine males and five females. The gender of the participants was not balanced because two female academics withdrew from the interviews due to lack of time. The age range of the participants was between 27 and 52 years old. The sample was not truly representative, but the comments

collected from the participants did accurately reflect their attitudes to the job.

Table 3.3: Background information of interview participants

Teachers	Age	Gender	Time in post	Education level	Present post	Department	Subject area
T1	48	F	20	Master	Professor	School of Law	Commercial Law, Environment Law
T2	52	F	26	Master	Professor	School of Foreign Languages	Applied Linguistics
T3	27	M	3	Bachelor	Assistant teacher	School of Foreign Languages	Applied Linguistics
T4	35	M	8	Master	Associate Professor	School of Statistics	Applied Statistics
T5	31	M	7	Master	Lecturer	School of International Business Communication	Cross Culture Communication, Translation and Interpretation
T6	29	M	10	Master	Lecturer	School of Foreign Languages	Applied Linguistics, English Teaching
T7	42	M	17	PhD	Associate Professor	School of Finance and Economics	Stock Option, Macro-economics
T8	52	M	24	Bachelor	Associate Professor	School of Foreign Languages	English Teaching, Applied Linguistics
T9	44	M	19	Master	Associate Professor	School of Law	International Economic Law, International Private Law
T10	28	M	3	Master	Lecturer	School of Statistics	Statistics of Gross Domestic Economic
T11	43	M	21	Master	Associate Professor	Practice Teaching	ERP (Enterprises Resource Plan), Accounting Information System, Management Information System
T12	32	F	6	Master	Lecturer	Tourism and Hotel Management	Tourism Marketing
T13	48	F	24	Master	Professor	School of International Economy and Trade	International Technology Transfer
T14	27	F	1/2	Master	Assistant teacher	Department of English as a Second Foreign Language	English Literature

3.6.1.2 Questionnaire Sampling

The questionnaires were conducted in six universities in Northeast China in December 2006. Firstly, the researcher invited former classmates who were university academics and some academics who participated in the semi-structured interviews to take part in the survey. Then, they helped the researcher to contact other academics to increase the sample.

246 copies of the questionnaire were sent out and a total of 220 copies were completed and returned. 16 copies of incomplete questionnaires were abandoned in order to increase the validity of the quantitative data collection. The remaining 204 questionnaires were analyzed using SPSS. Table 3.4 shows the general demographic characteristics of the questionnaire respondents.

Table 3.4: General demographic characteristics of the questionnaire respondents

		Number	Percent	Total
Gender	Male	82	40.4%	203
	Female	121	59.6%	
Age	Younger	164	80.8%	203
	Older	39	19.2%	
Length of service	Shorter	166	81.8%	203
	Longer	37	18.2%	
Education level	Lower	164	82.8%	203
	Higher	39	17.2%	
Post	Lower	142	70.3%	202
	Higher	60	29.7%	
Subject area	Arts	134	68.0%	197
	Sciences	63	32%	

3.6.2 Semi-Structured Interview

The importance of the semi-structured interview approach has been identified in many job satisfaction research studies in the educational field, for example, in the works of Mercer (1996, 1997), Evans (1997a, 1998, 2001) and Ssesanga and Garrett (2005). They concluded that the semi-structured interview was an effective way of collecting detailed data of teachers’ job satisfaction. Semi-structured interviews were used in this study, firstly to identify factors affecting university academics’ job satisfaction in the Chinese context and secondly to elicit university academics’ perspectives on job satisfaction aspects. These data were used both to design the questionnaire and to check against the evidence collected from the questionnaire.

Justification of the semi-structured interviews

Interviewing is arguably viewed as one of the most flexible research methods, especially for complex and sensitive issues. It is one of the most commonly used and recognized methods in qualitative research and it is arguably highly advantageous due to its adaptability (Bell, 1993).

Semi-structured interviews have the advantage that the researcher can probe for deeper answers, ask for elaboration and examples, discover new ideas, and modify questions as time goes on. The researcher can also get detailed information on what is needed to achieve research objectives. In addition, the researcher can be immersed in social systems and cultures, and gain a much better grasp of data than simply reading survey results (Gubrium and Holstein, 2002).

Semi-structured interviews are especially useful when there is a need to explore issues of an undefined nature or considerable complexity. This is because semi-structured interviews can be modified from time to time to explore unanticipated issues (Gubrium and Holstein, 2002). For example, if one participant brings up an unanticipated issue, a new question can be added to the interview plan that will allow the next participant to confirm or disconfirm the issue.

Semi-structured interviews can bring up many thoughts and perspectives. From interviews, the researcher can arguably get more honest and more sensitive information

than from the use of questionnaires.

Furthermore, the personal contact in the semi-structured interview can help participants understand the questions. When participants have difficulty answering the question, the researcher can help them. In addition, gestures or other visual cues can have different effects on participants, especially for sensitive issues (Rubin and Rubin, 1995).

Development of the semi-structured interviews

The interview question sheet is attached as Appendix 1. General interview questions were derived from work-related factors illustrated in Chapter 2 (see Table 2.5 and Figure 2.6), including intrinsic factors in terms of self-esteem, self-efficacy, self-actualisation and flexibility and autonomy, and extrinsic factors with regard to work itself, work group, pay, promotion and teaching and research. All these work related factors had strong correlations with motivation theories which provided the perspective for examining academics' job satisfaction. Sub-questions were designed and modified from previous job satisfaction studies (e.g. Lacy and Sheehan, 1997; Ssesanga and Garrett, 2005; Mercer, 1997; Egbule, 2003), such as appreciation in society, responsibility and challenge, professional development, personal and work relationship with colleagues and promotion prospects. All sub-questions supported a full response to the main questions and provide detailed information for the study. Furthermore, a pilot study was carried out by a group discussion with two academics (the researcher's former classmates). They gathered together with the problem identification and interview questions revision. The pilot study

was an effective way to discover possible problems and increase the validity and reliability of this element of the data collection. In the final stage, interview questions were reviewed and revised by the researcher's supervisors.

Peer review

Since the interviews were conducted in Chinese, the researcher translated the first interview transcript into English in order for it to be reviewed by the researcher's supervisors, and it was also reviewed by a Chinese university academic expert in this area.

A rationale for peer review is that it is rare for the researcher to spot every mistake or flaw in a complicated piece of work. Therefore, the idea of peer review is that the work should be reviewed by someone of standing in the area of study to increase the probability that weaknesses will be identified with advice and encouragement. The process of peer review is considered as a reasonable, fair, objective judgment to establishing a reliable body of research and knowledge. Corrections were made to the interview after the peer review of the first report.

Interview analysis

The interview data were transcribed and translated from Putonghua into English immediately after the data collection. A sample of transcription and translation is attached as Appendix 2. With regard to the translation, there are some problems to be taken into consideration. As translation is affected by the categories and words available in one's thinking, there may be some incorrect translation and the researcher may impose her own

language on translation. Just as Fishman (1974) stated, ‘observers are not led by the same picture of the universe, unless their linguistic backgrounds are similar or can in some way be calibrated’ (p.65). The problem with the lack of the corresponding words in English or the apparent equivalents words may not express the meaning intended by the researcher, in this way she translated the words according to the research context. To limit the impact of these risks in translation, a careful check by a second bilingual expert who is familiar with the content of the document may be effective. All original translated texts were reviewed by a Chinese university academic expert in this area and the differences between translations were discussed with the researcher. This step could be a wise safeguard against translation errors and could increase the validity of the study.

For interview data analysis, the researcher used Nvivo 7 to group the data together on the basis of work related factors identified in the literature review in Chapter 2 (see Table 2.5 and Figure 2.6), including nine work related factors in terms of self-esteem, self-efficacy, self-actualisation, flexibility and autonomy, work itself, work group, pay, promotion and teaching and research. The Nvivo 7 allowed the researcher to code the interview transcripts and to retrieve all those sequences of coded text. This meant the computer takes over the manual tasks (for example, copy and paste the related text together). This enabled the researcher to organize large amounts of data and explore emerging patterns. To start with, the researcher read through the initial interview transcriptions and made notes about significant remarks and key words. Then the researcher related all these terms to concepts and categories in the existing literature. The speech was mainly coded into

nine categories identified in previous literature review and all related data were labeled. With regard to any items or slices of data related to more than one concept, the researcher coded them in all connected categories. For other information, the researcher categorized them into a folder called ‘free data’ (such as themes of higher education changes, school regulations) which was prepared for use. All categories were to be used for the analysis and discussion of the participants’ perceptions of job satisfaction.

3.6.3 Self-Completion Questionnaire

The reason for using a self-completion questionnaire as the following measuring instrument of the study was its wide use as a useful instrument for collecting survey information (Cohen *et al.*, 2000). It addressed a larger group of participants than those interviewed. The purpose of the questionnaire was: first, to provide shared views across the whole sample which were raised by the interviewees; secondly, to provide a means of verifying interview generated information and to get a wider range of comments; and thirdly, to provide a quantifiable level of response.

Justification of the questionnaires

The questionnaire was designed in a logical order, from simple closed questions to more probing opened ones, so the participants would feel comfortable to complete.

The Likert scale method (Bryman, 2004) was used in assessing attitudes in the questionnaire. It consisted of two parts: a stem, which was a statement of an attitude, and

a scale on which respondents could express their opinion on whether they were strongly agree, agree, undecided / It depends, disagree or strongly disagree. This scale was chosen as it is arguably the most commonly used format and it is known as an effective method for obtaining consistent survey responses. The Likert scale allows a participant to provide feedback that is slightly more expansive than a simple close-ended question, but that is much easier to quantify than a completely open-ended response. Further, it is simple to analyze, and the researcher can easily identify similarity between items and any correlations. In this part of the questionnaire, there were 47 statements representing different factors that influenced academics' job satisfaction. From the scale ticked by the respondents, the researcher could identify academics' attitudes on job satisfaction and the factors that affected them most and least.

The self-completion questionnaire was viewed as a quick, easy and cost effective way to do the research. It has some advantages. First, self-completion questionnaires gather data in a standardised way, so they are arguably objective. When respondents receive questionnaires, they are free to complete the questionnaire by themselves and on their own time-table. In this way, bias may be reduced. The questionnaire has a uniform question presentation and the researcher's own opinions could not influence the respondent to answer questions in a certain manner (De Vaus, 1996). Moreover, the self-completion questionnaires are familiar to most people. Nearly everyone has had some experience of completing questionnaires and they generally do not make people apprehensive. Therefore, they can be simple and quick for the respondent to complete and

it is relatively quick for researcher to collect information (Bryman, 2004). Another advantage is that respondents are not influenced by certain researcher effects. Bryman (2004. p. 133) suggested that characteristics such as ethnicity, gender and the social background of researchers may combine to bias the answers that respondents provide. In addition, the questionnaires may also be used for sensitive topics which users may feel uncomfortable speaking to an interviewer about.

Development of the questionnaires

The questionnaire is attached as Appendix 3. It was designed and modified in response to an initial analysis of the interview data and previous studies illustrated in Chapter 2 (e.g. Bellamy *et al.*, 2003; Houston *et al.*, 2006; Lacy and Sheehan, 1997 and Ssesanga and Garrett, 2005). The questionnaire included four parts. In the following section, each one is described and rationalized in detail.

Section one: sample characteristics

This first part was developed to gather the participants' background and socio-demographic variables including age, gender, time in post, educational level, current position and subject area. These background and demographic variables have been assessed by recent research as relevant factors in job satisfaction studies. Age, gender, time in post and educational level were selected because they are among the most investigated factors (Clark, 1996, 1997; Sloane and Williams, 1999 and Ssesanga and Garrett, 2005) and it could be concluded from the previous literature in Chapter 2 that

they have a significant relationship with job satisfaction. Other variables were included in the questionnaire as they were mentioned by interviewees, so the researcher believes that they may be related to the job satisfaction of university academics. Selecting these variables would add further relationships for the study with other variables of this study.

Section two: Job satisfaction

The second part covered aspects of job satisfaction. The questions were intended to measure factors including intrinsic and extrinsic factors associated with job satisfaction (Sloane and Williams, 1999; Bellamy *et al.*, 2003; Houston *et al.*, 2006; Lacy and Sheehan, 1997 and Ssesanga and Garrett, 2005). This part of the questionnaire comprised 47 items to measure factors which were believed to impact on job satisfaction. 17 questions measured intrinsic factors including self-esteem, self-efficacy, self-actualisation and flexibility and autonomy. 30 questions were designed to measure extrinsic factors which were related to five facets: work itself, work group, pay, promotion and teaching and research.

All the questions in this study were developed especially for this questionnaire. The reason these variables were chosen was that they were drawn from the interview data and previous literature and were found to be related directly to academics' job satisfaction. Respondents were asked to say how much they agreed with certain statements on a five-point Likert scale (strongly agree, agree, undecided / It depends, disagree and strongly disagree) with the same rationale as above.

Section three: The effect of job satisfaction

The third part of the questionnaire was developed to test the consequences of job satisfaction. More and more researchers worldwide have been attracted to job satisfaction research because of the effect of the job satisfaction upon academics in recent years (Hargreaves, 1994 and Houston *et al.*, 2006). There were a total of eight items on the same five-point Likert scale which measured staff turnover and stress, including intention to leave the job or early retirement and physical and psychological stress.

Section four: Other information

This section included some open questions on overall job satisfaction (measured by 1 to 10 scales, from low to high), what factors satisfied / dissatisfied them most, and other information they wanted to add. These open questions allowed respondents to give their opinion freely. Open questions were asked at the end of the questionnaire, giving respondents the opportunity to add anything they felt was important but which had not been included in the questionnaire. Although respondents may provide either too much or too little information and they are difficult for the researcher to analyze, the open questions may result in unexpected and potentially important information. From these open questions, the researcher wanted to get a general idea of the level of the academics' job satisfaction and which factor gives them the most job satisfaction / dissatisfaction.

Pilot study

A pilot study was undertaken to improve the validity and reliability of the questionnaires,

to discover any possible problems in terms of unclear or ambiguous questions, and to ascertain academics' opinions and comments about the questionnaire design. English and Chinese versions were both conducted for the purpose of testing objectivity and clarity of the questionnaire.

For the English version first, 10 questionnaires were handed to full time PhD students majoring in education (most of them used to be academics). 10 Chinese versions were e-mailed to the researcher's former university academics and friends who are university academics (not the same people as the main sample). All participants were asked to give their comments and suggestions about the questions and the questionnaires as a whole. Revisions were made to ambiguous and overlapping questions, and to the design and wording of questions.

Questionnaire analysis

All quantitative data collected through the questionnaires were coded and analysed using SPSS (11.5 version) software which is designed to analyze quantitative data quickly and in many different ways (Bryman, 2004). SPSS was selected for use in this study for several reasons: (a) it is widely distributed; (b) it is easy to use; (c) it could do a wide range of analyses from simple descriptive statistics to all kinds of complex multivariate analyses; and (d) it is well documented (Stevens, 2002). In this research, both descriptive and analytic statistical techniques were used to identify factors contributing to academics' job satisfaction, including factor analysis, an independent sample t-test and Pearson

Correlation analysis.

Factor analysis is a set of techniques for determining the extent to which variables that are related can be grouped together so that they can be treated as one combined variable or factor rather than as a series of separate variables (Cramer, 2003, p.13).

The objective of the factor analysis in this research was to reduce data by replacing the large number of original variables with smaller number of factors. In the questionnaire, the job satisfaction part had 38 items that were intended to measure job satisfaction of each factor. Factor analysis technique grouped these items into fewer categories. Principle components analysis, the Eigenvalues and Scree test were utilized to explore the number of factors, and factors were rotated using varimax procedures by which factors with significant loadings were extracted.

Factor analysis can achieve the objective from either an exploratory or confirmatory perspective. Exploratory analysis is used to determine what is the most likely factor structure for the interrelationship among a set of variables and do not set any prior constraints on the number of components extracted, while confirmatory factor analysis is used to test the probability that a hypothesized factor structure based on previous studies or on relevant theory is supported or confirmed by the data (Cramer, 2003; Hair et al. 1998). In this research, exploratory analytic technique was used to search for a proper factor structure for the interrelationship among variables. Although original variables were carefully selected based on the literature review, any variable that did not load on a factor was considered and may be excluded from the study. The detailed factor analysis can be found in Appendix 4.

T-tests were used to compare the mean differences. There are basically three types of t-tests: two-sample t-test is used to compare the means of one variable for two groups of cases; Paired-samples t-test is used to compare the means of two variables for a single group; and one-sample t-test is used to compare the mean of one variable with a known or hypothesized value. One independent sample t-test was applied in this research to compute whether there were any significant differences in academics' levels of job satisfaction on demographic variables including age, gender, time in post, post, educational level and subject area. The level of significance was set at 0.05.

Correlation analysis was used to measure the association between two variables. A Correlation Coefficient (r) is a statistic used for measuring the strength of a supposed linear association between two variables. The most common Correlation Coefficient is the Pearson Correlation Coefficient, used to measure the relationship between two interval variables. Generally, the Correlation Coefficient varies from -1 to +1. The value of absolute +1 or -1 indicates a perfect Correlation Coefficient between the two variables. The closer the value to +1 or -1, the stronger the association between the two variables (Hair, 2006). In this study, the researcher intended to measure the attitudes of academics' job satisfaction and how various factors impacted on job satisfaction in China. Pearson Correlation analysis technique can help the researcher find the significant association between the dependent and independent variables and report the results accurately. The significant level was set at 0.05 for statistical analysis.

In addition, frequency, mean and standard deviations were used to explore the different levels of academics' job satisfaction in relation to intrinsic and extrinsic factors. To better understand those factors contributing to Chinese academics' attitudes to job satisfaction, job related factors were presented from high to low levels and were classified as satisfied and dissatisfied factors.

3.7 Validity and Reliability

Validity and reliability are important keys to effective research. Validity is an important factor in producing successful research, and reliability is a prerequisite of validity. In this research, triangulation was used to raise the levels of validity and reliability.

3.7.1 Validity

Validity, in a broad sense, Berry (1998) defined as 'the ability of an instrument or procedure to perform as intended, as in selection, testing, or training' (p. 529). In other words, validity is a determination of whether the research actually measures what it is intended to measure. In term of qualitative research, it refers to the honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher. Since bias seems to be inevitable, researchers should thus aim to minimize invalidity and maximize validity. As for quantitative data, validity refers to the careful sampling, appropriate methods and statistical treatments of the data (Cohen *et al.*, 2000). Triangulation is one way to achieve the aim of validating the data. In the current study, both interview and questionnaire were

used to study academics' job satisfaction from different perspectives, which help the researcher to achieve a more convincing result and enhance the validity of the data.

3.7.1.1 Internal Validity

Internal validity seeks to demonstrate that the explanation of a particular event, issue or set of data which a piece of research provides can actually be sustained by the data (Cohen et al., 2000, p. 107).

According to Blumenfeld-Jones (1995), the notion of 'truth' in research – what actually happened were used to achieve internal validity. This perspective implies that the results of the research come from those participating in the research and the findings accurately describe the phenomena being researched. In this study, the researcher described what was seen and heard in the interviews and the questionnaires as accurately as possible. It was achieved by recording all the interviews for transcribing and translating, peer reviews of the transcripts and pilot study of the questionnaire. All the methods satisfy triangulation and strengthen data validity.

3.7.1.2 External Validity

'External validity refers to the degree to which the results can be generalized to the wider population, cases or situations' (Cohen et al., 2000, p. 109). It could be interpreted as comparability and transferability which is possible 'to assess the typicality of a situation – the participants and settings, to identify possible comparison groups, and to indicate how data might translate into different settings and cultures' (LeCompte and Preissle, 1993, p.348). In this study, transferability was boosted by 'thick descriptions' (Denscombe, 2003) of the research field. To achieve external validity, the researcher provided

sufficiently clear, detailed description of the research context and rich data from interviews and questionnaires for the readers and users of the research so that they can decide the extent to which findings from this research are transferable to other situations. It is important for this research to have relevant and significant use beyond the context of this study.

3.7.2 Reliability

Berry (1998) defined reliability as ‘the extent to which measurements or evaluations of a person are consistent’ (p. 527). In other words, the research produces similar results under constant conditions on all occasions. It attempts to answer the concerns about the consistency of the information collected (i.e., can we depend on the data or findings?). For example, a questionnaire with high reliability will produce consistent results when it is implemented each time by different respondents.

Reliability receives its importance as a criterion for assessing qualitative research only against the background of a specific theory of the issue under study and about the use of methods (Flick 2002, p. 220).

But researchers can go different ways in order to increase the reliability of research. In this study, the researcher enhanced reliability in many ways.

First, the researcher used a systematic strategy for the research design, data collection, interpretation and communication of findings through the report. This detailed and systematic method allowed other researchers to evaluate the research and analyze data easily so that they can come up with the similar conclusions. Second, the researcher tried to ensure that enough data was collected to be able to draw conclusions that can stand up

to scrutiny. Third, the researcher provided sufficient background information to help other researchers access the findings for themselves and help them decide whether they agree with the conclusions or not. Finally, the researcher produced a plausible and coherent explanation of what she found that can be examined by other researchers.

3.8 Ethical Issues

Much educational research involves the use of human participants from whom or about whom the data are collected. Since human participants were involved in this study, ethical issues needed to be taken into consideration (Wiersma, 2000). The main concern lay with the ethical issues raised from the relations between researcher and research participants in the investigation process (Bryman, 2004). One ethical principle for social science researchers is that the participants should have the right to know what they are researched for.

All participants were university academics engaged in the course of the study. From an ethical perspective, the researcher explained the purpose of the research, the process of their engagement and the importance of their participation to each participant. For instance, the researcher explained that this study was designed to collect information on university academics' job satisfaction. It aimed to acquire a greater understanding of university academics' attitudes to their work, exploring the factors impacting on their job satisfaction and identifying the potential consequences of positive or negative job satisfaction in the Chinese context. The researcher also informed the participants that the

study was voluntary and they had the right to withdraw from the investigation at any time and for any reason. In addition, the confidentiality and the privacy of individuals' data, the way of storing data were declared to the participants. The data were only collected for research purposes apart from the researcher and people involved in this study no one could have access to the data. The researcher also asked the permission from participants for tape recording of the interview.

3.9 Conclusion

To conclude, the overall review of the methodological considerations provides a substantial understanding to the study. The strengths and potential problems of the methods illustrated in the study support the importance of applying a mixed methods approach with respect to the specific research questions. The representation of the research design, justification of data collection methods, preliminary data analysis and validity and reliability concerns set a firm basis for the data analysis and discussion in the next chapter.

CHAPTER 4 - Results, Analysis and Discussion

4.1 Introduction

In Chapter 2, it was argued that to gain a holistic and comprehensive understanding of academic job satisfaction, it was important to examine job satisfaction related factors, including personal characteristics, intrinsic factors and extrinsic factors. The conceptual framework of the study (Figure 4.1) is repeated here as a reminder of the different factors tested in this study. Correspondent with the structure used in the literature review, this results and analysis section is based upon these three perspectives. Through this chapter, the discussion will explore the main research question:

What factors impact on the job satisfaction of university academics in China?

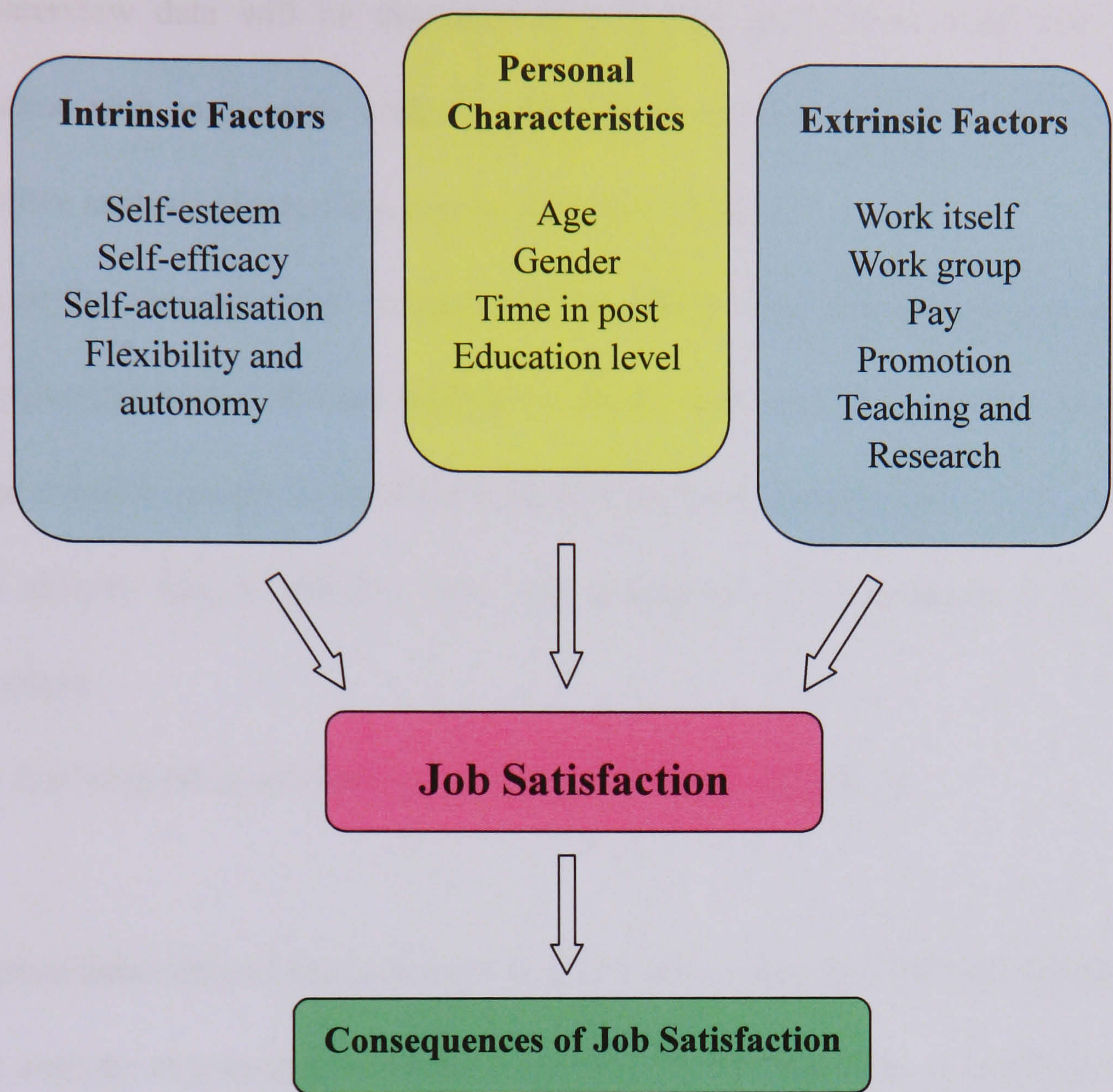


Figure 4.1: Conceptual framework of this study

This chapter will present results, analyses and discussion from the qualitative and quantitative data. The sequence of the data analysis for each job satisfaction factor could be viewed in Figure 4.2 below:

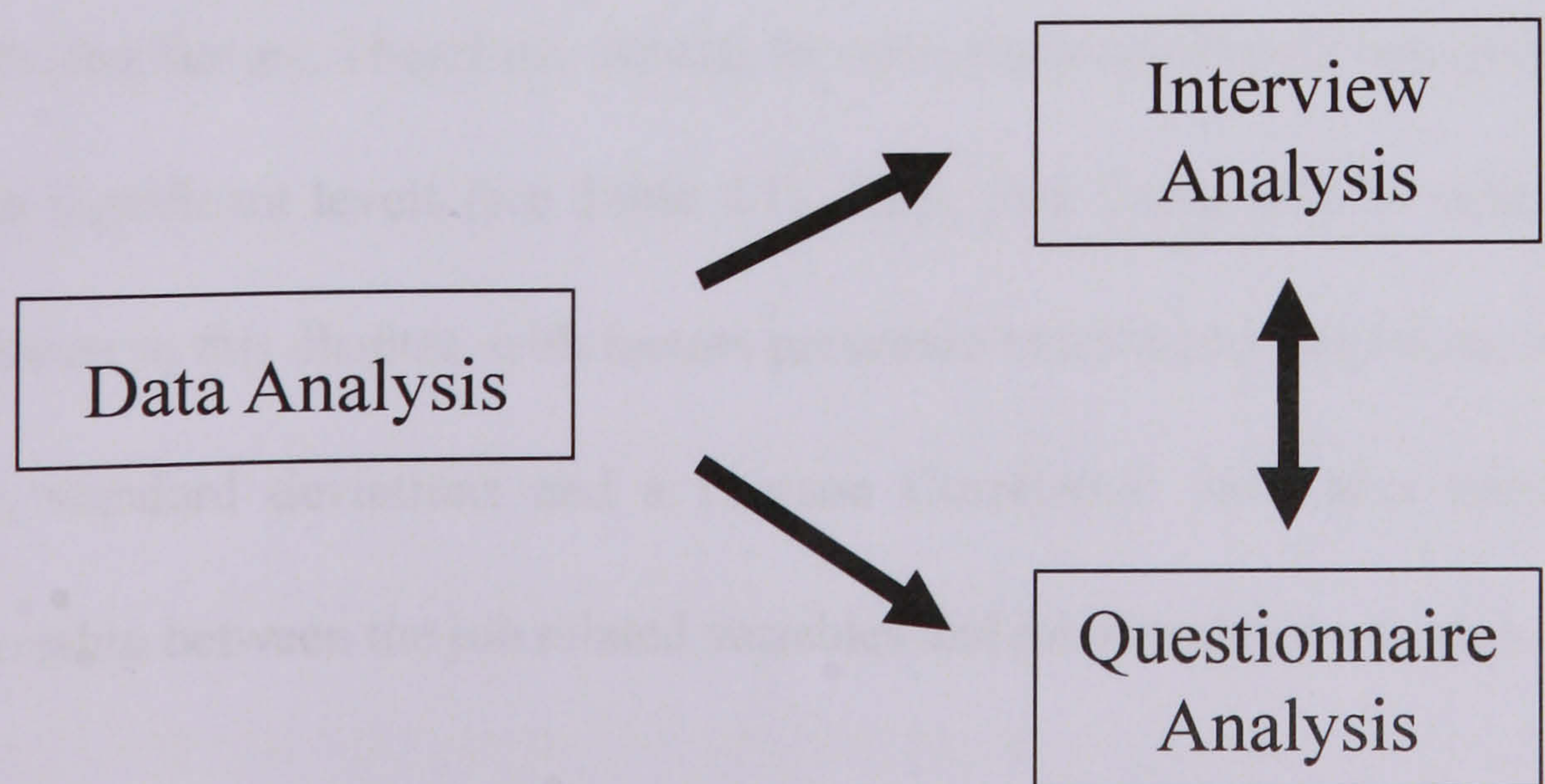


Figure 4.2: The sequence of the data analysis

The interview data will be discussed first as they are rich in detail derived from interaction with participants which provides the basis for the questionnaire design. The qualitative analysis of interview data using NVivo 7 aimed:

- to probe into university academics' perspectives on job satisfaction aspects by conducting semi-structured interviews, which were used to design the questionnaire and checked against the evidence collected from the questionnaire;
- to identify factors affecting university academics' job satisfaction in the Chinese context;
- to find what effect job satisfaction has on university academics.

The quantitative data of questionnaires were analyzed using the SPSS (11.5 version). The factor analysis of principal components was used to derive groups of variables to factors which provided a basis for further analysis. The detailed factor analysis can be found in Appendix 4. The questionnaire has 38 items devised to measure job satisfaction related factors which were categorized as nine factors in the factor analysis (shown in Table 4.1). Variables with higher loadings were considered more important and had greater influence on selected factors. Therefore, aspects for each particular factor were presented from high to low significant levels (see Table 4.1). Then each factor will be used for analysis and discussion in this chapter, with factors presented in bold and aspects in italics. Frequency, mean, standard deviations and a Pearson Correlation were also used to explore the relationship between the job related variables and job satisfaction factors.

Table 4.1: Factor interpretation

Factor 1: Satisfied with self-esteem	<i>I have a sense of pride in being a teacher</i> <i>As a teacher I am appreciated in society</i> <i>As a teacher I have high social status</i> <i>People show me respect</i> <i>My work gives me a sense of personal accomplishment</i>
Factor 2: Satisfied with self-efficacy	<i>I believe I am qualified for this job</i> <i>I am fully confident in my ability to work well</i>
Factor 3: Satisfied with self-actualisation	<i>I get a sense of satisfaction when students perform well.</i> <i>I would like to make more effort to improve myself</i>
Factor 4: Satisfied with flexibility and autonomy	<i>My work shift is highly flexible</i> <i>The teaching content is highly flexible</i> <i>The way in which I teach can be highly flexible</i>
Factor 5: Satisfied with work itself	<i>I am satisfied with my working conditions</i> <i>I am satisfied with the degree of challenge I face in my work</i> <i>I am satisfied with the responsibility I have in doing the work</i> <i>I am satisfied with the variety of my work</i> <i>I am satisfied with the opportunity to utilize my ability in my work</i> <i>I am satisfied with the opportunities for professional development</i>
Factor 6: Satisfied with work group	<i>I believe work relationships with colleagues is very important</i> <i>I believe personal relationships with colleagues is very important</i> <i>I am satisfied with the team spirit among my colleagues</i> <i>My colleagues are supportive</i> <i>A harmonious atmosphere among colleagues leads to efficiency at work</i> <i>We are united and get along well with each other</i>
Factor 7: Satisfied with pay	<i>I am satisfied with the pay in relation to the amount of work I do</i> <i>I am satisfied with the pay in relation to the post I hold</i> <i>I am satisfied with the pay in relation to the cost of living in this city</i> <i>Compared with others with similar qualifications who work outside the university sector, I am satisfied with the pay</i> <i>Compared with others in this university or others' holding a similar position in other universities, I am satisfied with the pay</i> <i>I am satisfied with the fairness of the pay structure in the university</i>
Factor 8: Satisfied with promotion	<i>I am satisfied with the present promotion system in this university</i> <i>The promotion system is fair for all</i> <i>It is reasonable to scale it with the length of service and research achievement</i>
Factor 9: Satisfied with teaching and research	<i>I am satisfied with the teaching hours per week</i> <i>I am satisfied with the research workload</i> <i>It's better to allow teachers to choose teaching or research as a preference</i> <i>It's better to balance the quantity and the quality of research</i>

4.2 Job Satisfaction and Personal Characteristics

The first part to be analysed in the conceptual framework is personal characteristics. As there are fourteen interviewees, the small amount is not suitable for analysis; this part of analysis will use data from 204 questionnaires. To investigate the role of personal

characteristics, the researcher recoded age, length of service, education level and post in two categories respectively. By age, they were divided into a group of younger ($\text{age} \leq 40$) and older ($\text{age} > 40$). By length of service, they were divided into a group of shorter ($\text{length} \leq 15$ years) and longer ($\text{length} > 15$ years). Their education levels were divided into higher (PhD level) and lower (Masters and lower level). The post variable was separated into lower (assistant teacher, lecturer and other) and higher (associate professor and professor).

Based on the new categorization system, an independent sample t-test was run to examine whether each of these personal characteristics affected job satisfaction significantly. The results were summarized in Table 4.2. The mean statistics indicated that female, older, longer length of service, higher education level, higher post and arts respondents had slightly higher levels of overall job satisfaction, but these differences were not significant.

Table 4.2: An independent sample t-test on the overall rate of job satisfaction indicated by personal characteristics

		N	Mean	SD	T	Sig.(2-tailed)
Gender	Male	82	7.2152	.16869	-.911	.363
	Female	121	7.3932	.11320		
Age	Younger	164	7.3106	1.26113	-.299	.766
	Older	39	7.4000	1.66627		
Length of service	Shorter	166	7.3395	1.26670	-1.497	.136
	Longer	37	7.8235	1.28624		
Education level	Lower	164	7.2716	1.30942	-1.088	.278
	Higher	39	7.5429	1.46213		
Post	Lower	142	7.3151	1.29057	-.084	.933
	Higher	60	7.3333	1.47874		
Subject area	Arts	134	7.4264	1.31562	1.416	.158
	Sciences	63	7.1311	1.39613		

Reasons why the choice of measure for average is the mean are: first, from among the averages of mean, median and mode, the mean is the most popular one and is a

calculation which uses every variable in the questionnaire; it can arguably best show the typical value of each variable. Second, as the data in this study is normally distributed, the mean is a suitable choice. Median is usually used when the distribution is skewed. Third, although the median or the mode may be used when the scale is ordinal, the categories of scales are not quite distinct in this study because the intervals between the markings are equal (from 1 to 10 satisfaction scales). The mean is preferred as a summary for this type of questionnaire as the scale is rated as arithmetical (Routio, 2007).

To explore the relationships between job satisfaction and the personal characteristics a Pearson Correlation (r) was used. Table 4.3 provides the results that gender, age, education level and present post had positive weak non-significant relationships with overall job satisfaction. Length of service and subject area had negative weak non-significant relationships with overall job satisfaction. This meant that none of personal characteristics affected overall job satisfaction significantly, which is consistent with prior research studies by Davis (2002) and Sipon (1997). It indicated that there were no significant associations between overall levels of satisfaction and personal characteristics.

Gender had no significant influence on any job satisfaction factors, which corresponded with the conclusion drawn by Ward and Sloane (1999). The results indicated that the gender gap in job satisfaction may disappear within Chinese university academics due to their similar levels of education. It may also be attributed to the fact that in Chinese

culture masculinity/femininity effects are not obvious (Hofstede, 1991).

The correlation table shows that age had a significant influence on job satisfaction when related to self-esteem and self-efficacy. It is important to note that older academics perceived higher levels of satisfaction with self-esteem and self-efficacy. It is not surprising to find these results because in the Chinese culture older academics are always respected because of their age regardless of the position (Dimmock and Walker, 2000d), which may bring them a sense of satisfaction with self-esteem. It is also related to the fact that older academics had more cumulative knowledge than younger academics which may lead to their higher levels of satisfaction with self-efficacy.

Data revealed that difference in length of service in higher education did not influence differences in satisfaction with any job related factors. It is surprising to draw this finding which is consistent with studies by Oshagbemi (2000) in the UK, but contrary to the findings by Tu (2002) in China. This contrary result may be related to the different research groups and time periods compared with Tu's study. Results in this study indicated that new entrants and long serving academics had similar levels of satisfaction with their jobs.

The findings showed that education levels did not correlate with job satisfaction factors. This is inconsistent with the research studies by Clark and Oswald (1996) and Ward and Sloane (1999). This implied that academics' perceptions of job satisfaction fitted their expectations with different education levels. With regard to the present post and subject

areas, they were included in the questionnaire because some of the interview participants mentioned their relationship with pay. However, it is surprising to find that there was no significant correlation with any job satisfaction factors. Further analysis for these two aspects will be comprised in the pay section later in this chapter (see Section 4.4.3).

Table 4.3: Correlations between job satisfaction and the personal characteristics

		Overall satisfaction	Satisfied with self-esteem	Satisfied with self-efficacy	Satisfied with self-actualisation	Satisfied with flexibility and autonomy	Satisfied with work it self	Satisfied with work group	Satisfied with pay	Satisfied with promotion	Satisfied with teaching a research
Gender	Pearson Correlation	.065	-.133	.037	.014	-.043	.007	-.114	.029	.128	.022
	Sig. (2-tailed)	.363	.060	.599	.842	.549	.916	.105	.682	.070	.754
Age	Pearson Correlation	.015	-.140	-.194	-.061	-.012	-.072	.037	-.105	.007	-.088
	Sig. (2-tailed)	.834	.047*	.006**	.389	.862	.305	.597	.136	.916	.211
Length of service	Pearson Correlation	-.007	-.107	-.111	-.031	.022	-.006	.038	-.069	.045	-.060
	Sig. (2-tailed)	.926	.133	.117	.657	.758	.929	.590	.331	.522	.395
Education level	Pearson Correlation	.095	-.028	-.033	-.036	.093	-.065	-.062	-.054	-.014	.011
	Sig. (2-tailed)	.183	.693	.646	.612	.188	.357	.382	.445	.838	.881
Present post	Pearson Correlation	.052	-.101	-.110	-.063	.052	-.041	.010	-.060	-.070	-.045
	Sig. (2-tailed)	.472	.154	.120	.377	.465	.560	.886	.399	.326	.527
Subject area	Pearson Correlation	-.103	.049	.102	.036	-.009	-.015	.058	.037	-.139	-.114
	Sig. (2-tailed)	.158	.501	.156	.616	.897	.834	.417	.602	.051	.110

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

4.3 Job Satisfaction and Intrinsic Factors

This section presents the analysis and discussion of job related intrinsic factors from interview and questionnaire data, including self-esteem, self-efficacy, self-actualisation and flexibility and autonomy.

4.3.1 Job Satisfaction and Self-esteem

From the interview transcripts, it was found that attitudes to self-esteem varied from negative to positive. Although one of the interviewees (T8) indicated he can not feel that the work supported a sense of self-esteem, most of the interviewees reported positive attitudes towards self-esteem. All the responses classified as negative, neutral and positive can be seen in Appendix 5.

Regarding the sole interviewee with a negative attitude to self-esteem, he seemed to have a lack of self-confidence and have a problem in teaching as seen below.

I: Do you like to be a teacher?

T8: I am an obedient person; I always take the things as they come and I do not have too many ideas. Since I have become a teacher, I have to be a teacher.

I: Do you feel that your work supports a sense of self-esteem?

T8: I did not feel like that.

I: do you always feel able to do this work?

T8: I can say just so so. Nowadays the students hold quite different attitude from those in the old days, so the communication seems to be a problem.

I: Are you satisfied with your work?

T8: I can not feel satisfied or not, to be a teacher is to teach.

Self-esteem was identified by the interviewees as an important factor related to job

satisfaction. The responses pointed out that the Chinese government has paid more attention to teachers and education in recent years and university academics' social status has improved a lot, which supports a strong sense of self-esteem for university academics. As Kang (2004) stated the investment in higher education has been greatly increased since 1998, and strengthening the country through investment in science and education has become the national strategy and accepted by the whole population. The change has been supported by some of the academics.

T1: ...It's quite different from several years ago. Only in recent years, I could feel this kind of self-esteem.

T4: ...It's ok, and actually, better than previous time. In recent years, the social status of university academics has improved a lot.

T7: ...It's much better than the elder generation. The social status of university academic turns better with the passage of time.

Therefore, it is possible to conclude that with educational changes in China in recent years, the new viewpoint of higher education in society has brought great satisfaction to university academics' self-esteem.

In the questionnaire analysis, Table 4.4 shows the frequencies and cumulative percentage of the satisfaction with the self-esteem factor. Only 7% of the respondents disagreed that this factor contributed to job satisfaction, which indicated academics' high levels of satisfaction with self-esteem.

Table 4.4: Satisfaction with self-esteem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	38	18.6	18.9	18.9
	agree	114	55.9	56.7	75.6
	undecided	35	17.2	17.4	93.0
	disagree	14	6.9	7.0	100.0
	Total	201	98.5	100.0	
Missing	System	3	1.5		
Total		204	100.0		
Mean					2.1244
Std. Deviation					.79338

Table 4.5 shows that the satisfaction with the self-esteem factor had significant correlations at the 0.01 level (2-tailed) with the five aspects. The positive correlations meant that the more strongly respondents agreed with the five aspects, the higher they were satisfied with their self-esteem.

Table 4.5: Satisfaction with self-esteem correlations

		Satisfaction with self-esteem
<i>a sense of pride in being a teacher</i>	Pearson Correlation	.537**
	Sig. (2-tailed)	.000
<i>appreciated in society</i>	Pearson Correlation	.600**
	Sig. (2-tailed)	.000
<i>high social status</i>	Pearson Correlation	.511**
	Sig. (2-tailed)	.000
<i>people show me respect</i>	Pearson Correlation	.565**
	Sig. (2-tailed)	.000
<i>work gives me personal accomplishment</i>	Pearson Correlation	.650**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

It is noted that in the interview analysis the majority of academics held positive attitudes to self-esteem, which is in accordance with the findings from the questionnaire analysis that 93% questionnaire participants agreed with this factor. The results revealed academics’ high levels of satisfaction with self-esteem. Some studies reported contrary findings, for example Rhodes *et al.* (2007) researched academics’ job satisfaction in two Schools of Education located within chartered and statutory universities in the UK and found that academics rejected the notion of ‘prestige derived from association with your

university' and ranked low 'society's views'. This indicated that the Western theory may not fit the Chinese cultural context. Several interpretations might be offered in understanding academics' high levels of self-esteem in this study. Firstly, it might be attributed to the fact that academics' sense of recognition and increasing status is related to the process of education reform in China in recent years. The Chinese government paid more attention to education and emphasized that the development of science and education should take priority over other activities (Kang, 2004). Secondly, the implementation of Project 211 (MoE, 2001b) aimed at strengthening 100 Chinese universities to become first-class universities in the world, has facilitated the development of higher education which may bring great motivation for academics. Thirdly, the increasing internationalization of Chinese higher education has brought academics greater opportunities to study abroad and communicate and cooperate with world-wide universities, which might help academics build up a reputation worldwide and achieve personal accomplishment (Kang, 2004). Furthermore, it might be attributed to academics' comparison of the current situation to that in previous years. The improvement of their social status and social recognition might bring them great satisfaction with self-esteem.

4.3.2 Job Satisfaction and Self-efficacy

For the self-efficacy factor, responses from interviews were provided from two aspects: *'feel qualified for the job'* and *'full of confident in ability to work well'*. Most of the interviewees believed that they were qualified for the job and were full of confidence to

do the work well. Only one interviewee (T8) was not as confident as others and had a problem of communication with students; this is the same person who held negative attitudes to self-esteem mentioned above.

I: do you always feel able to do this work?

T8: I can say just so so. Nowadays the students hold quite different attitude from those in the old days, so the communication seems to be a problem.

I: Do you feel that you have the opportunity to use all your skills in your work?

T8: I have no special skills so I don't feel that much.

Hence, we can tell from this finding that university academics had high levels of job satisfaction with self-efficacy. This implied that academics' sense of efficacy may influence their job satisfaction directly in meeting their intrinsic needs of competence, and indirectly in achieving high levels of self-esteem by recognition and pride.

Table 4.6 presents the frequencies and cumulative percentage of the satisfaction with self-efficacy factor from the questionnaire data. Only 2% of the respondents disagreed with this factor. We can see that the respondents had quite high levels of satisfaction with self-efficacy.

Table 4.6: Satisfaction with self-efficacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	54	26.5	26.7	26.7
	agree	115	56.4	56.9	83.7
	undecided	29	14.2	14.4	98.0
	disagree	4	2.0	2.0	100.0
	Total	202	99.0	100.0	
Missing	System	2	1.0		
Total		204	100.0		
Mean					1.9158
Std. Deviation					.69672

In Table 4.7, we can see that aspects '*qualified for this job*' and '*confident in the ability*

to work well’ had significant correlations with satisfaction with self-efficacy factor at the 0.01 level (2-tailed). The positive significant correlations meant that the higher respondents agreed with the two aspects, the higher they were satisfied with their self-efficacy.

Table 4.7: Satisfaction with self-efficacy correlations

		Satisfaction with self-efficacy
<i>qualified for this job</i>	Pearson Correlation	.416**
	Sig. (2-tailed)	.000
<i>confident in my ability to work well</i>	Pearson Correlation	.442**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

Job satisfaction with self-efficacy was the factor with the strongest satisfaction in the current study (see Table 4.26). The responses from both interviews and questionnaires revealed the same results: academics had high levels of satisfaction with self-efficacy. The majority of academics agreed they were qualified for the job and were full of confidence to do the work well. Studies carried out in other countries have reported similar results. For example, Caprara *et al.* (2006) examined over 2000 teachers’ self-efficacy beliefs as determinants of their job satisfaction in 75 Italian junior high schools, and concluded that high levels of self-efficacy beliefs can induce and sustain teachers’ job satisfaction. It implied that Western theories can be appropriately used in Chinese context, but it should be treated cautiously because Caprara *et al.* (2006) investigated school teachers rather than university academics. Chinese academics’ high levels of self-efficacy are more likely to be related to the knowledge they had. Since most academics undertake several years of extended degree study before taking a position in university, the cumulative knowledge they have acquired may bring a greater sense of

self-efficacy. The high level of academics' job satisfaction with self-efficacy indicated that academics' perceived sense of competence is a source of intrinsic motivation and job satisfaction. It could be argued that self-efficacy beliefs could nourish and sustain academics' job satisfaction, and efficacious academics have higher levels of job satisfaction than those who doubt their competences.

4.3.3 Job Satisfaction and Self-actualisation

Responses from interviewees showed high levels of satisfaction related to self-actualisation. Eight academics indicated that they would make more effort to improve themselves and update their knowledge, as they needed to keep pace with new ideas related to changes in the information society. They needed to meet the demands from students and society, and they would like to learn more knowledge to share in class. In terms of the satisfaction related to the students, six academics commented that the strongest sense of personal accomplishment was from students, and they felt a sense of pride when they viewed the knowledge students had learned and witnessed their progress and achievement. Five academics illustrated that fresh ideas from students could inspire them a lot and motivate them in their work. The transcripts indicated that the majority of academics mentioned that personal accomplishment came from students which became a satisfaction factor in their jobs. T1 and T5 even pointed out that the main reason they stayed as university academics was that they could achieve self-actualisation in the work.

T1: The real reason for me to be a teacher is that I believe I could learn new knowledge continuously and improve myself gradually, so I feel fairly satisfied with the job.

In my opinion, it is the continuous emergence of challenges and the updating of the knowledge from the job that offered me a chance to improve myself. With the personal development I can feel a sense of personal accomplishment.

T5: Although I am not satisfied with the middle level of the pay, the main reason I stayed as a university academic was I can achieve self-actualisation in the work. The main satisfier is ... I can achieve self-actualisation in the work.

The high levels of satisfaction with self-actualisation indicated that Chinese academics had a desire to achieve the full realization of their potential and sought for the personal growth in the work.

In the questionnaire analysis, Table 4.8 presents the frequencies and cumulative percentage of the satisfaction with the self-actualisation factor. It shows 75.0% academics agreed with this statement. This indicated that the respondents had quite high levels of satisfaction with self-actualisation.

Table 4.8: Satisfaction with self-actualisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	46	22.5	22.5	22.5
	agree	107	52.5	52.5	75.0
	undecided	46	22.5	22.5	97.5
	disagree	5	2.5	2.5	100.0
	Total	204	100.0	100.0	
Mean					2.0490
Std. Deviation					.74115

As we can see from Table 4.9, two aspects ‘*get satisfied when students perform well*’ and ‘*make more effort to improve myself*’ had significant correlations at the 0.01 level (2-tailed) with satisfaction with self-actualisation factor. The positive correlations meant that these two aspects played a positive role in forming the satisfaction with self-actualisation factor.

Table 4.9: Satisfaction with self-actualisation correlations

		Satisfaction with self-actualisation
<i>get satisfaction when students perform well</i>	Pearson Correlation	.367**
	Sig. (2-tailed)	.000
<i>make more effort to improve myself</i>	Pearson Correlation	.403**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

Findings from the interview and questionnaire have drawn the same conclusion that academics had high levels of satisfaction with self-actualisation. This supported Hackman and Oldham’s (1976, 1980) argument that self-actualisation is a moderator of the influence of internal psychological variables on job satisfaction (Carlson and Mellor, 2004). The self-actualisation need is the development and realization of one’s full potential (Mullins, 2007). Maslow (1970) considered this need as the highest level of ‘the social needs’. Although Maslow suggested that human needs are arranged in a series of levels, a hierarchy of importance, he also makes it clear that the hierarchy is not necessarily a fixed order (Mullins, 2007). The results of Alderfer’s (1972) study also suggested that low-level needs do not have to be satisfied before higher-level needs emerge as a motivating influence. This indicated that Western theories were applicable to the Chinese cultural context. In China, it was the similar situation that self-actualisation can motivate academics to work although they were not satisfied with the pay.

With regard to university academics, a highly educated group, the drive for creativity and self-actualisation may arise despite lack of satisfaction with pay. This special group may be more motivated by the intrinsic rewards of work such as challenge, creativity, personal growth, and personal accomplishment rather than by the jobs that simply provide an income. As Tampoe (1993) illustrated, the top four important satisfaction

factors for knowledge workers, and it could be argued that university academics fit into this category, are personal growth, work flexibility and autonomy, personal achievement and rewards. For university academics, with long term commitments to knowledge creation and knowledge transmission and continuously engaging in exploring the truth, the pursuit of higher order needs appears more important than money in motivating them to stay in the job.

4.3.4 Job Satisfaction and Flexibility and Autonomy

In this study there were a number of aspects related to the work flexibility and autonomy provided by the interviewees: *'time flexibility'*, *'teaching content'*, *'teaching method'* and *'bureaucracy from school'*.

For the *time flexibility* aspect, all responses identified that time was flexible, with two vacations and no need to stay in the office out of lecture hours. Although they were busy sometimes, flexibility in working hours provided a prime difference between an academic and a conventional working population. Four academics stated that this was the most outstanding characteristic of the university work. Chinese academics have no restriction in working hours or even a rigidly defined place of work. Therefore, academics can choose when and where they want to work and can work with relative freedom out of teaching hours. Academics might have stronger long term work commitments than people working in other professions because of this factor. Flexibility in working hours of academics may be more likely to benefit women for it allows them

to combine a career with domestic and family responsibilities. For example,

T2: At the beginning of my career, I was unwilling to be a teacher. However, when considering my tiny baby and family responsibilities, I stayed in the university. There's high flexibility and autonomy in my work. Time flexibility in university is one of the most important reasons I did not change my job. As time went by, the university offered me some chances to further my study in other universities home and overseas, I nearly gave up the idea of changing a job by the end of 80s.

T10: Since I became a teacher, I found some advantages to be a teacher, and the most outstanding one is time flexibility.

Therefore, we can conclude that academics like time flexibility feature in the work and felt satisfied with this factor.

Regarding the *teaching content*, most of the interviewees commented that although there were basic requirements for teaching materials, there was some flexibility over what they used. For example, they can choose to use national teaching materials and can also choose other teaching materials freely. For example,

T4: 70% of the teaching material was fixed, the remaining 30% could be taught freely, and I can combine the content with my research interests, working experience or social perceptions.

Four academics mentioned that they have the flexibility to apply and set up modules according to their interests or research fields as long as the members in authority approved the proposal and the proposal was welcomed by students. The data tended to reflect that academics derive a lot of satisfaction from the autonomy in teaching content and the opportunity to pursue their own ideas in their working environment. As one of academics (T9) commented, the best part of his job is the autonomy to exert his ideas in the teaching and research and exchange ideas with students. This kind of autonomy

which is based on trust outweighed the demand from the regulations and it is what makes him want to be an academic.

In terms of *teaching methods*, only three interviewees commented on flexibility here, but we can see from the responses that there was some flexibility in this aspect. According to responses from two academics, although teaching and research were basically restricted from the authority, there was flexibility in teaching method. Another interviewee (T5) illustrated that concerning the aspect of academic study, 80% of teaching and research are restricted by the basic request from the university and only about 20% of teaching methods vary from one academic to another. This implied that teaching methods were not totally restricted by the university and academics can teach in their preferred styles which may bring them a kind of satisfaction to the work.

When asked about *bureaucracy*, data showed that academics expressed different attitudes and opinions from the other three aspects. It was noted that most of the attitudes were negative. Some of academics commented,

T5: Flexibility and autonomy were limited as we must fill in various forms in the process of teaching because of the educational change in recent years.

T12: I am not satisfied with the regulations required from the authority, because sometimes the administrative department can not stand on academics' feet to enforce regulations.

Another response provided by one academic (T13) also commented on the regulations. She illustrated that the regulations and quantity requirements confined the creativity of academics. In a word, a majority of interviewed academics were clearly dissatisfied with

the lack of autonomy related to the imposition of authority and rules without any input from academics. This issue may be intensified by the fact that administration groups were trying to accommodate educational changes and reforms from the Ministry of Education without consulting the academics, and therefore policies had been inappropriate or badly planned and executed. Academics had their own ideas to achieve the best results in teaching and to run the university. However, lack of this kind of autonomy appeared to cause their dissatisfaction with work. This may also imply a sense that impersonal regulations sent from the senior management team may be ineffective ways to communicate with academic staff because this left them feeling as if they had no voice.

Overall, the responses provided by the interviewees showed that they held different attitudes to the aspects related to work flexibility and autonomy. Three interviewees indicated that the main satisfier was the work style including the flexibility of working hours and opportunities to pursue their own ideas. Two academics recognized that the main dissatisfier was regulations from the authority and limitations in research ideas. From the above analysis, it could be argued that autonomy was more highly valued than bureaucracy in the university.

Table 4.10 presents the frequencies and cumulative percentage of the satisfaction with flexibility and autonomy factor from the questionnaire analysis. It shows 12.3% of the respondents disagreed with this factor contributing to satisfaction. This percentage was

higher than for the other three intrinsic factors, but we can still conclude that respondents had moderately high levels of satisfaction with flexibility and autonomy.

Table 4.10: Satisfaction with flexibility and autonomy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	19	9.3	9.4	9.4
	Agree	99	48.5	49.0	58.4
	undecided	59	28.9	29.2	87.6
	disagree	20	9.8	9.9	97.5
	strongly disagree	5	2.5	2.5	100.0
	Total	202	99.0	100.0	
Missing	System	2	1.0		
Total		204	100.0		
Mean					2.4703
Std. Deviation					.88751

Satisfaction with flexibility and autonomy was the last factor to be examined among the intrinsic job satisfaction factors in this study. Table 4.11 shows that satisfaction with flexibility and autonomy factor had significant correlations at the 0.01 level (2-tailed) with all three aspects. The results indicated that all three aspects played a positive role in shaping the overall satisfaction with flexibility and autonomy.

Table 4.11: Satisfaction with flexibility and autonomy correlations

		Satisfaction with flexibility and autonomy
<i>work shift is highly flexible</i>	Pearson Correlation	.371**
	Sig. (2-tailed)	.000
<i>teaching content is highly flexible</i>	Pearson Correlation	.547**
	Sig. (2-tailed)	.000
<i>teaching method is highly flexible</i>	Pearson Correlation	.578**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

It was found in both interview and questionnaire analyses that respondents had high levels of satisfaction with ‘*time flexibility*’, ‘*teaching content*’ and ‘*teaching method*’ aspects. With regard to the ‘*bureaucracy from school*’, it had no significant loadings on any factors in factor analysis (see Appendix 4 - Factor Analysis), so it was excluded from the questionnaire analysis. Thus, it was discussed in the interview findings only.

Although academics were satisfied with their work flexibility and autonomy, it ranked as the sixth satisfaction factor in this study (see Table 4.26). However, satisfaction with flexibility and autonomy was ranked as the highest satisfaction factor in studies by Bellamy *et al.* (2003) and Houston *et al.* (2006). In this study, out of four individual flexibility and autonomy aspects, three were ranked at a moderately high level of satisfaction: '*time flexibility*', '*teaching content*' and '*teaching method*' (see Table in Appendix 6). One possible reason for the low rank of flexibility and autonomy in this study might be related to the inclusion of the aspect '*bureaucracy from school*'. The negative attitudes from some of the academics towards the school bureaucracy might result in reduced satisfaction with the overall flexibility and autonomy in the work. Studies by Lacy and Sheehan (1997) and Ssesanga and Garrett (2005) categorized similar aspects in the school administration and management factor, which showed consistent results with the current study: academics had low levels of satisfaction with school bureaucracy. Therefore, it could be concluded that Western theories can be applied in this case to the Chinese cultural context.

Work flexibility and autonomy have become an increasingly significant aspect of motivation and job satisfaction in recent years. According to Mullins (2007),

Moves towards greater flexibility may afford opportunities for employees to have more freedom and control over their working arrangements and have noticeable effects on their job satisfaction and performance (p. 282).

Academics' flexible working arrangements in terms of working time, working location

and the pattern of working were regarded as the traditional values of higher education in China, which provided the opportunities for academics to pursue their own ideas. Therefore, it is not surprising to find that academics felt satisfied with this kind of flexibility in their work.

The low level of academics' satisfaction with school bureaucracy might be explained in two ways. Firstly, it might be related to the Chinese higher educational change in recent years. In the process of educational reform (Willis 2000), the administration group can not avoid executing the trial regulations and policies from the Ministry of Education, which might be inappropriate or badly planned. Another possible explanation might be attributed to the *power-centered* culture in Chinese society (Dimmock and Walker, 2000b, 2000c) (see Section 2.6.2). University leaders tended to prevail over the school level decisions and managerial tasks, while academics' participation seemed to be uncommon and there was limited communication between the administration group and academics. The impersonal regulations and the quantitative requirement mentioned by respondents indicated that the management team enforced policies without any input from academics. Academics seek for freedom to do better in their classrooms and university; lack of this kind of autonomy appeared to cause their dissatisfaction with work.

4.4 Job Satisfaction and Extrinsic Factors

This section presents the analysis and discussion of job related extrinsic factors from the interview and questionnaire sequentially, including work itself, work group, pay,

promotion and teaching and research.

4.4.1 Job Satisfaction and Work Itself

During the conversation with academics, they provided various aspects related to job satisfaction and work. Two interviewees commented that they liked the job because they enjoyed the continuous emergence of challenge and innovation from the work. All interviewees agreed that there were opportunities to use all their skills in the work. Two respondents mentioned their satisfaction with the variety of work because the different projects in the work offered the chance to improve themselves and communicate with organisations outside the university. However, three academics indicated that just teaching and research work seemed to be so dull and monotonous, and they expected more variety. When asked about opportunities for professional and career development, most commented that few chances existed for individual professional development as there were not many training programmes, exchange programmes, forums or conferences, and going abroad for study and work required high levels of English and the chances were limited. The responses related to work can be exemplified by the following representative insights:

T10: As young academics, the challenges come mostly from research.

T7: As academics, we need a sense of responsibility for both students and work.

T6: There is a big challenge in the career of teaching for the society is developing so fast and academics also have to face the pressure of research task.

T3: We can make full use of skills in university as all skills can be exhibited in the classroom.

T12: The work is full of variety, including teaching different modules, research, management work and various projects.

T11: Professional development included going abroad work and domestic training courses. But these opportunities are limited and hardly happened to young academics.

T12: There is a certain amount of domestic communication, but foreign related programmes are few.

The responses indicated that various aspects of work impacted upon academics’ job satisfaction. ‘Challenges’ and ‘responsibilities’ were highly valued by academics more than ‘the variety of work’ and ‘professional development’. Generally speaking, nine interviewees recognized that they were fairly satisfied with the work, and two of them held neutral attitudes. From the interview analysis, it is possible to conclude that academics were fairly satisfied with the work itself factor.

From the frequencies and cumulative percentage of the satisfaction with work factor in the questionnaire analysis (shown in Table 4.12), we can see that 75% of the respondents agreed with this factor, which meant that academics had a fairly high level of satisfaction with work itself.

Table 4.12: Satisfaction with work itself

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	23	11.3	11.3	11.3
	agree	130	63.7	63.7	75.0
	undecided	36	17.6	17.6	92.6
	disagree	12	5.9	5.9	98.5
	strongly disagree	3	1.5	1.5	100.0
	Total	204	100.0	100.0	
Mean					2.2255
Std. Deviation					.78039

Satisfaction with work itself was one of the most important factors to be considered within the overall job satisfaction. Respondents were asked to indicate their levels of job satisfaction in six aspects related to work. Table 4.13 demonstrates that all these six aspects had significant correlations at the 0.01 level (2-tailed) with satisfaction with work factor. The positive correlations indicated that any increase of satisfaction with these six

aspects was more likely to cause an increase in overall satisfaction with work.

Table 4.13: Satisfaction with work itself correlations

		satisfaction with work itself
<i>working conditions</i>	Pearson Correlation	.457**
	Sig. (2-tailed)	.000
<i>the degree of challenge I face</i>	Pearson Correlation	.558**
	Sig. (2-tailed)	.000
<i>the responsibility I have</i>	Pearson Correlation	.608**
	Sig. (2-tailed)	.000
<i>the variety of my work</i>	Pearson Correlation	.432**
	Sig. (2-tailed)	.000
<i>the opportunity to utilize my ability</i>	Pearson Correlation	.600**
	Sig. (2-tailed)	.000
<i>the opportunities for professional development</i>	Pearson Correlation	.575**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

In the interview analysis, nine interviewees recognized that they were fairly satisfied with the work itself, and two of them were categorized as having neutral attitudes. When examining the descriptive statistics of work related statements from the questionnaire, we can see in Table 4.12 that 7.4% respondents disagree with their satisfaction with work and the mean score is 2.2255, neither in the high nor low level of job satisfaction factors. Therefore, it is possible to conclude that both interview and questionnaire analyses revealed that academics were fairly satisfied with the work itself factor. Similar findings have been reported in other studies by Dodd and Ganster (1996), Taylor and Sarros (2000) and Togia (2004). These studies showed that academics were satisfied with the work itself related aspects, such as work challenges, work responsibilities, work autonomy, opportunities to use potential ability and creativity. This implied that both Western and Chinese academics value work itself as an important source of job satisfaction.

As shown in the literature review, many researchers considered meaningful work as an

important factor related to individual's job satisfaction, especially for academic-knowledge workers. Lucas (1999) pointed out that employees, especially high flyers, rank challenging and interesting work and freedom higher on their motivational list than money and performance-related pay.

A report from the Chartered Institute of Personnel and Development also drew attention to the management of knowledge workers, highlighting the importance of autonomy, challenging work and sharing in the creation of organisational values. With the development of new technology it is important to motivate employees to capture, share and transfer knowledge (Mullins, 2007, p. 276).

Therefore, it is not surprising to find that job satisfaction issues led to Chinese academics' emphasizing work itself related aspects. One interviewee (T1) even commented that the continuous emergence of challenges and the updating of the knowledge from the job were the main reason for her to remain as an academic, and she felt fairly satisfied with the job for this factor.

Although data analysis revealed that academics were fairly satisfied with the overall factor of work itself, professional and career development aspect needed to be paid some attention. Only 47.5 percent of questionnaire participants (see Table in Appendix 6) and seven interviewees were satisfied with this aspect. The satisfaction percentage was not as high as other aspects within the work itself factor. Five respondents commented that the opportunities for relevant professional and career development were too few to meet the needs of academics. Some possible explanations might be offered in interpreting this issue. Firstly, in spite of the higher education reform (MoE, 2002, 2003, 2004a, 2005) at the time of this research, the higher education system was still in the process of development and this inadequacy may have resulted in limited training programmes,

exchange programmes, forums or conferences. Secondly, the funding for training in higher education might be limited, so professional development opportunities could not meet needs of every academic (Mohrman, 2003). Thirdly, academics are a highly educated group and might have higher needs for self-improvement than other professions, so the drive for self-actualisation may raise their requirements for professional and career development.

4.4.2 Job Satisfaction and Work Group

In the data from interview transcripts, some academics considered collegial relationships as a strong aspect that affected their satisfaction with work. Others were highly critical of the poor team spirit of their fellow faculty members. Responses to job satisfaction and work group can be summarized and discussed in two main categories: relationship with colleagues and team spirit.

When asked about the relationships with colleagues, all academics agreed that they were satisfied with both work and personal relationships with colleagues. They commented that good relationship and harmonious atmosphere can influence academics' mood and motivate their work, which was an essential condition to work well. Only one interviewee (T11) indicated that he was not satisfied with the relationship at the beginning which brought a negative effect to his work. He pointed out some possible reasons,

T11: Maybe because I have just worked in this university for a very short time. Another reason probably is that others may have prejudice upon me when I haven't shown my

ability out within so short time and maybe because they compete for this post.

However, the situation was getting better and he felt more personal warmth and kindness in the university. The data tended to reflect that the establishment of a harmonious atmosphere among academic staff was an important issue in an academic's perception of job satisfaction. One potential disruption factor was the competition among academics which in some cases can lead to the increased productivity but in other cases can cause a negative influence on the working environment.

Although all academics had high levels of satisfaction with relationships with colleagues, it is interesting to find that two interviewees did not think it very important. As they illustrated,

T10: I do not think it's very important. The preference of working independently rather than team work distinguished Chinese academics from foreign counterparts.

T2: It's not very important for a university academic, because we don't need to work together most of the time. An attractive point for being a university academic is that the relationship in a university is less complex than other works.

This kind of situation is arguably common in many Chinese universities: academics prefer to work in isolation and accomplish tasks alone. However, five academics offered a different opinion. They commented that they need the mutual sense of support and collegiality and team work is often a more effective way to solve tough problems and produce creative ideas. For example,

T1: ...I really need a sense of support and collegiality from a team to further the study in my field and team work is often an effective way to solve problem.

T12: I think the cultivation of team spirit is very important, but it is just short of this kind spirit here. I really need a team to put forward the project.

With regard to team spirit, five of them commented that they run a project together in research activities and communicated with each other during the process of preparing lessons and case discussion in teaching activities. Four academics commented that team spirit was also important in daily life for they were united and cooperated well with each other in group activities, such as the chorus for the spring festival party and group work in sports activities. The establishment of strong team spirit was an important issue because it was crucial for work effectiveness and it was closely related to the qualitative improvement of the educational process.

Although all academics deemed the team spirit was very important, not all of the interviewees in this study were satisfied with it. A response given by one academic (T1) indicated that they worked comparatively independently and they did not have enough chances to cooperate with each other, because academics in the department were relatively limited, it is impossible for them to cooperate together majoring in different fields and various research areas. She also illustrated that she really needed a kind of team work and that it is difficult to work alone without cooperation, and she needed a sense of support and collegiality from a team to further the study in her field. According to the response given by another academic,

T10: We are lacking in team spirit and always work independently. Sometimes we work as a group, but comparatively speaking, we do not have too much team spirit and communication is a big problem. For example, everyone take one part of the project and combine them without communication in the progress.

The quality of the research achievement in China is comparatively low. It is probably because every teacher works independently and sticks to his own idea. We do not have strong team spirit for this reason. Personally, I believe team work is very important.

Although sometimes we organize a team training programme, I don't think highly of its effect. Colleagues in our university seldom contact with each other. For example, in our department, we hold a meeting in every Wednesday afternoon to exchange ideas and acknowledge the fresh policy. In daily life, we just attend our respective classes and seldom stay in the office. Thus the chances for teachers to communicate are limited.

The colleagues are supportive. They can give me a hand as long as I am in trouble. We get along well with each other. Everyone is ready to help others, but when it comes to specific team work they fail to perform the role as a team member.

Another interviewee (T11) shared the same view that although the cultivation of team spirit was very important, it was not apparent in their work place. He illustrated that he liked to work independently because of his personal character. He was a little scared about the complexity of human relationships in Chinese society. However, sometimes one person was too weak to push forward the work, and he needed a team very much. The responses explained that most of academics were not satisfied with the team spirit in the work and they were looking for an effective team to implement the plans, develop more creative solutions to the problems, understand and support decisions and compensate for individual weaknesses.

Overall, the interview responses relating to the category of work group revealed that academics had higher levels of satisfaction with relationships with colleagues aspects than team spirit ones. Although the work group factor was at a high level of satisfaction, the team spirit aspect still needs to be paid some attention.

In the questionnaire analysis, Table 4.14 presents the frequencies and cumulative percentage of the satisfaction with work group factor. It shows 6.4% of the respondents

showed lack of satisfaction with this factor. This indicated that the respondents had quite high levels of satisfaction with their work group.

Table 4.14: Satisfaction with work group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	38	18.6	18.7	18.7
	agree	121	59.3	59.6	78.3
	undecided	31	15.2	15.3	93.6
	disagree	12	5.9	5.9	99.5
	strongly disagree	1	.5	.5	100.0
	Total	203	99.5	100.0	
Missing	System	1	.5		
Total		204	100.0		
Mean					2.0985
Std. Deviation					.78359

The satisfaction with work group factor was the second extrinsic factor to be taken into consideration in this study. In Table 4.15, we can see that all the six aspects answered by respondents had significant correlations at the 0.01 level (2-tailed) with satisfaction with work group factor. The positive correlations indicated that the higher respondents reported themselves satisfied with these six aspects, the higher they were satisfied with their work group.

Table 4.15: Satisfaction with work group correlations

		Satisfaction with work group
<i>work relationships with colleague important</i>	Pearson Correlation	.212**
	Sig. (2-tailed)	.002
<i>personal relationships with colleague important</i>	Pearson Correlation	.217**
	Sig. (2-tailed)	.002
<i>team spirit among my colleagues</i>	Pearson Correlation	.650**
	Sig. (2-tailed)	.000
<i>my colleagues are supportive</i>	Pearson Correlation	.515**
	Sig. (2-tailed)	.000
<i>harmonious atmosphere leads to efficiency</i>	Pearson Correlation	.360**
	Sig. (2-tailed)	.000
<i>united and get along well with each other</i>	Pearson Correlation	.657**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

Both interview and questionnaire results proved that work and personal relationships with colleagues contributed significantly to academics’ satisfaction with work group.

With regard to team spirit, four out of fourteen interviewees commented that they were not satisfied with it. In questionnaire analyses, from the Table in Appendix 6, we can see that 6.4% of respondents were dissatisfied with team spirit. Although the percentage is lower than that in the interview analysis, 19.7% ‘Undecided’ answers indicated that respondents’ attitudes to team spirit were neither positive nor negative. Therefore, it could be concluded that questionnaire findings supported interview results that academics had moderately high levels of satisfaction with their work group, in which relationships with colleagues aspects were higher than team spirit ones.

Previous research showed that,

positive social relationships with colleagues are important sources of teachers’ emotional health, because colleagues are seen as a source of friendship and a source of social and emotional support; when these relationships don’t exist, teachers share deep feelings of dissatisfaction (Zembylas and Papanastasiou, 2006, p. 237).

Lacy and Sheehan (1997) examined academics’ job satisfaction across eight nations and reported that they were generally satisfied with their relationships with colleagues. Similar findings could also be found in other research studies, such as Boyer *et al.* (1994), Oshagbemi (1997, 1999), Ssesanga and Garrett (2005), Onu *et al.* (2005) and Chimanikire *et al.* (2007). Satisfaction with work group corresponded with Maslow’s theory (1970), in which he suggested that interpersonal relationships could lead an individual to experience job satisfaction. Herzberg (1968) considered interpersonal relationship as a hygiene factor which may create job dissatisfaction. This is inconsistent with the current study. This reflected that most of Western theories can be applied to the Chinese context, but not in all cases because cultural issues played an important role in

academics' perceptions of job satisfaction.

Academics' high levels of satisfaction with the relationship with colleagues might be attributed to the fact that Chinese society has long been known for its emphasis on *Guanxi* (relationships) as a guiding principle of social organisations (Cheng and Rosett, 1991; Fei, 1992). There are also some cultural roots that make interpersonal relationships an important issue in the Chinese context (see Section 2.2.2). In Dimmock and Walker's (2000b, 2000c) cultural concept, Chinese society was classified as more *group-oriented* with greater emphasis on *holistic relationships*. The Confucian tradition defines individuals in relational terms and relates individuals to their significant others (Bian and Ang, 1997). In the Chinese culture the collective is always regarded as greater and more important than the individual: self is identified, recognized, evaluated when one relates to groups and communities they belong to (Hsiao, 1988). In this sense, it is not surprising to find that Chinese academics deem interpersonal relationships as an important part in their jobs and had high levels of satisfaction with it.

With regard to the team spirit aspect, one explanation might help us to understand academics' attitudes to team work. In McClelland's (1988) achievement motivation theory, he identified four characteristics of people with strong achievement need. One of them is the personal responsibility for performance. He illustrated that,

This kind of people likes to attain success through the focus of their own abilities and efforts rather than by teamwork or chance factors outside their control. Personal satisfaction is derived from the accomplishment of the task and recognition need not come from other people (Mullins, 2007, p. 264).

As university academics might be this group of people with strong achievement needs, it is likely for them to prefer working independently. This also corresponded with Evans' (2001) research of interpersonal relations among schoolteachers in primary school and academics in higher education. The findings in her study reflected the generally more collaborate nature of schoolteachers' working lives in relation to the more isolated nature of academics' working lives.

4.4.3 Job Satisfaction and Pay

All interviewees made a great number of comments on pay which was deemed to be the most critical and strongest factor related to job satisfaction. For example, one academic (T3) mentioned that pay questions were the most important questions he wanted to answer in the interview. Some different pay related aspects can be found in their responses for the further explanation and can be illustrated in Figure 4.3:

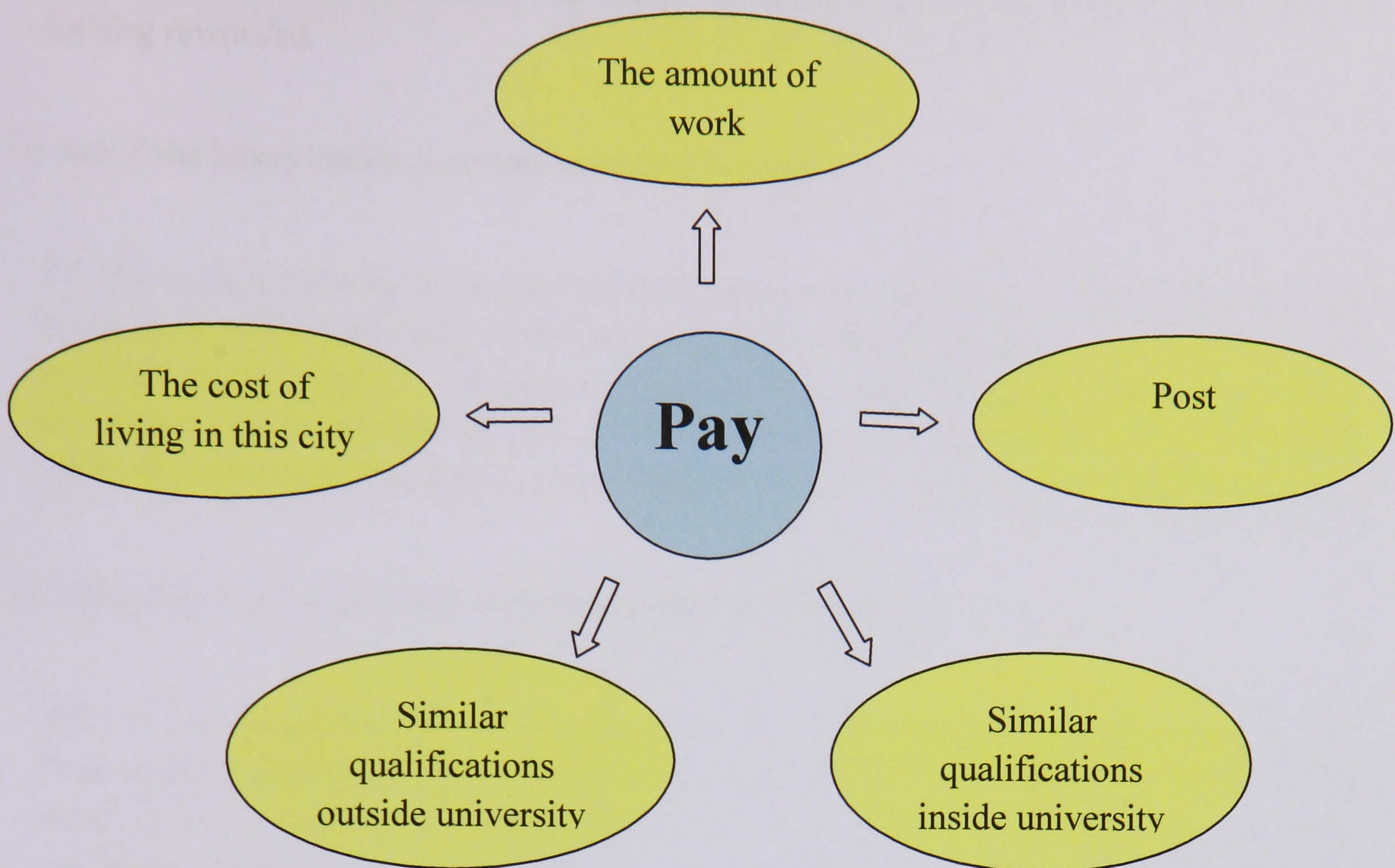


Figure 4.3: Pay related aspects

Pay related to the amount of work

The majority of respondents from interviews indicated that they were dissatisfied with their pay in relation to the amount of work they did. Six academics stated that they felt unfairly treated because the pay was not in proportion with the amount of work they did. One academic (T3) mentioned that he felt dissatisfied with the large amount of non-paying work in relation to the educational reform which was pushed by the Ministry of Education. Other evidence also showed that the different types of workload did not comply with the pay they received. T2 offered a short comment reflecting the heavy supervision work and the low pay:

T2: People may think that the income of a professor is relatively high, but they neglect that we have to work more than 8 hours a day. Those who deal with international trade in companies can easily earn RMB 5,000. While we have to revise so many

assignments and dissertations and supervise the postgraduate students with nearly nothing rewarded.

T5 stated the heavy optional course work and low pay:

T5: The salary from these optional courses is the same as regular course, but we need to do more work, including compiling a complex didactical proposal, preparing and marking exam papers, and establishing marking and analyzing standards. I am unwilling to teach this kind of course which costs me about 30 hours to earn only RMB 1000. We work from shoulder to collar, but our income is only in a lower middle level.

T12 illustrated his great effort to the work and the low reward:

T12: In relation to the amount of work that I do, I think the reward is not enough, far from enough. Holding such a key position, I devoted all my energy and strength and made great contribution to the university, but the reward is low. Nowadays, university academics don't receive pay according to the amount of work they do. They put in a lot of invisible efforts. For instance, they design a system or a frame which will do great help to the development of the university without getting any pay. I apply for a project successfully for the university with tens of millions of funds, but I have no reward. So I feel extremely unfair.

Although three academics stated that they were fairly satisfied with the pay and the amount of work, seen from the above comments, it could be argued that many of the respondents were dissatisfied with the various kinds of workload and the low pay. They held the view that the pay system lacked fairness relative to the huge amount of effort they made and the reward was far from their expectations according to their contribution.

Pay related to post

With regard to pay related to post, it is true that higher post of academics received higher pay, but we can not simply say that post was a decisive factor of the pay. One respondent (T2) commented that pay is related to the post, but those professors who are already

50-60 years old earned more than the young academics mainly because of their length of service and achievements. There was a relatively rigid system of pay determination in the university, in which advancement was by number of years of working experience. Pay increment was in accordance with the increase of length of service. It did make sense if academics' pay was compared with people of the same age in different industries. When talking about pay and post, we can find other responses, for example,

T1: Pay doesn't comply with the educational level we have received.

T2: Post is not in proportion to the income.

T14: I hold a higher position which is not in proportion to a middle level salary.

The comments reflected that academics were not satisfied with the pay related to post they held. With the high levels of post and education, academics had high expectations with regard to the pay.

Pay related to the cost of living in this city

When commenting on the dissatisfaction with pay, a majority of respondents talked about the low level of pay related to the cost of living in this city. Seven of them expressed disappointed feelings about the pay compared with the average income in the city. They illustrated that in view of high living expenses in this tourism city, their earnings improved slowly and such imbalance was really a problem. One academic (T5) highlighted the high house pricing market in this city and commented,

T5: It is really a dream to buy a house in this city with the current salary. I can only make a living now.

This result was highly related to the selected sample regions. Different regions with

different living expense levels strongly influenced academics' satisfaction with pay.

Pay compared with similar qualifications outside universities

In the data of interview transcripts, when talking about the pay factor, academics compared themselves with a wider group than just other academics when evaluating their pay. Interviewees compared their pay with people holding similar qualifications in industry. They identified a 'pay gap' with people with similar capabilities who worked in other professions. In other words, academics' job satisfaction was not only affected by their own absolute pay level, but also by their pay relative to some expected level and comparison group. Consequently, they commented that the general pay level of university academics was low and they felt a lack of equilibrium. Taking the knowledge required and the workload into account, they felt dissatisfied with the pay compared with other professions. Most academics faced several years extended degree study before taking a position in a university, the high investment in human capital may cause their high pay expectation and pay arguably became a decisive factor for their commitment to the work.

In addition, two respondents compared their pay with the postgraduates they have already supervised. They illustrated,

T11: They (postgraduates) earn more than RMB 100,000 per year. I think university academics' income should at least reach this level.

T13: I deem RMB 8,000 per month is a more reasonable figure. There are not large numbers of professors in society while an ordinary graduate can earn more than RMB 6,000 in Huawei Corporation. My present salary is around RMB 5,000, not too much.

These comments reflected academics' perceptions of the deserved levels of pay. In evaluation of their pay position, they compared with the graduates they supervised and deemed that they deserved to have the same level of salary.

Another academic (T5) compared his pay with people working in companies and commented that not only was his low pay but there were also few fringe benefits:

T5: Compared with schoolmates working in foreign capital or state-owned companies, my income is low. There was also a relative absence of benefits such as house subsidy, company cars, subsidized meals, profit sharing schemes and bonus which were common for other types of highly qualified employees with the similar education level.

This comment implied that among the people with high qualifications academics were generally regarded as the low paid group. Therefore, it is interesting to find whether other job related factors can compensate for the dissatisfaction with pay in their perceptions of job satisfaction. It could be argued that university academics' pay was in a low level compared with people holding the similar qualification outside university. Academics' comparisons of their salary provided the largest influence on reports of their current job satisfaction with pay.

Pay compared with people holding similar position in universities

Interview transcriptions demonstrated academics' attitudes to pay compared with people holding similar positions in universities. It was found that university academics' pay varied between regions, subjects and universities (shown in Table 4.16).

Table 4.16: Responses in relation to pay compared with people holding similar position in universities

	Pay compared with people holding similar position in universities
Pay varies between regions	<p>T1: Compared with other universities in Dalian, it's not high. In relation to the cost of living in this city, the salary is a kind of reasonable. But in other big cities, like Beijing and Shanghai, their salary is much higher than ours. And it's not as good as those in similar cities. Compared with the teachers in similar universities with the same professional position, my income is in a lower middle level now.</p> <p>T4: I think this varies between regions. Compared with universities in BeiJing and ShangHai, our income is low, but compared with the schools within the northeast area, I think it's ok.</p> <p>T9: Evident gap exists between south and north regions. In the north of China, there is also great difference. Even in DaLian, there is difference.</p> <p>T10: We are in the lower level. There are data indicating this. We communicated during the research conference. Generally speaking, the pay in universities in south is much higher than those in north. They earn twice as much as us with a similar position.</p> <p>T13: It varies between regions. The income here is moderate in northeast area, but much lower compared with universities in south.</p> <p>T14: Compared with teachers working in a well developed city, teachers earn relatively low here. There is a big gap between the income of us and teachers in University of Foreign Economy and Trade in Beijing even though we do similar work in the same subject area. My conclusion is that the general salary level of university teachers in this region should be improved.</p>
Pay varies between subjects	<p>T8: It can be only compared with Foreign Language Department. In the Business and Economic department, a project can bring millions of profits, and compare with them we can feel disappointed.</p> <p>T13: The income of teachers from different schools also varied within this university. Though we are in the same university, we are offered unequal opportunities.</p> <p>T14: From my own perspective, my income belongs to the middle level among professors. The income varies for each department undertakes different kinds of projects and programmes which affect the earnings.</p>
Pay varies between universities	<p>T1: The pay may be affected by the reputation of the universities, such as "211 projects". What I expect is to get to a middle higher level.</p> <p>T3: In the previous time, the salary in our university and DaLian University of Foreign Languages is the highest, but now it is DaLian University of Marine and DaLian University of Technology. That is because they are among the '211 project' universities and the pay is related to it.</p> <p>T7: Each university has their own conditions and the subjects are different. The salary in the DaLian University of Marine and DaLian University of Technology may be at an even higher level. The income standard here is just around the middle.</p> <p>T9: There is great gap between universities, e.g. "211 projects" universities will get more fund from the country.</p>

The focal point of interview responses was that pay varied with regions. Six interviewees commented that there was a wide gap of university academics' pay between this region and the south part and big cities. What academics in this region expected was that the general pay level can be improved and the pay gap between regions can be reduced. In other words, academics will be more satisfied with the pay when it is fair across the whole country.

With regard to pay varying between subjects, one interviewee (T8) reported that science

academics earned more than academics majoring in arts because they undertook more projects. Other responses also revealed that the pay varied from each department as they undertook different kinds of projects and programmes which affected their earnings. It was the reason that one academic (T12) was satisfied with her total earnings including the benefit shares from the projects but dissatisfied with her salary from the university.

Furthermore, pay varied between universities. Three interviewees mentioned the higher pay in 211 Project universities. This aspect may be related to higher educational changes in recent years. Project 211 was launched in China in the late 1990s aimed at strengthening about 100 universities, and all the 211 Project universities have received higher levels of funding, support, status and recognition from the state, local governments and higher education institutions (MoE, 2001b). Therefore, the different investment in various universities may affect academics' job satisfaction for it related to the pay system.

From the responses we can see that compared with people holding a similar position in universities, most of university academics in the interviews were not satisfied with their pay for it varied with regions, subjects and universities. It could be argued that greater job satisfaction may be reported when the gap can be filled and the pay is fair for all academics in the country.

Table 4.17 presents the frequencies and cumulative percentage of satisfaction with the

pay factor from the questionnaire analysis. The results showed 26% of respondents either strongly agreed or agreed with this factor. This percentage was much lower than that in other factors we examined before. It meant that academics had moderately low levels of satisfaction with pay.

Table 4.17: Satisfaction with pay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	7	3.4	3.4	3.4
	agree	46	22.5	22.5	26.0
	undecided	68	33.3	33.3	59.3
	disagree	59	28.9	28.9	88.2
	strongly disagree	24	11.8	11.8	100.0
	Total	204	100.0	100.0	
Mean					3.2304
Std. Deviation					1.03670

In exploring the satisfaction with pay factor, respondents were asked to point out their levels of satisfaction in six aspects related to pay. From Table 4.18, we can see that all correlations were significant at the 0.01 level (2-tailed). The positive correlations between satisfaction with pay and these six aspects indicated that any increase in the six aspects was accompanied with the increase in their satisfaction with pay.

Table 4.18: Satisfaction with pay correlations

		Satisfaction with pay
<i>pay in relation to the amount of work</i>	Pearson Correlation	.728**
	Sig. (2-tailed)	.000
<i>pay in relation to the post</i>	Pearson Correlation	.683**
	Sig. (2-tailed)	.000
<i>pay in relation to the cost of living</i>	Pearson Correlation	.717**
	Sig. (2-tailed)	.000
<i>pay compare outside university</i>	Pearson Correlation	.774**
	Sig. (2-tailed)	.000
<i>pay compare inside university</i>	Pearson Correlation	.734**
	Sig. (2-tailed)	.000
<i>the fairness of the pay structure</i>	Pearson Correlation	.598**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

Both interview and questionnaire analyses revealed similar results, that pay was the strongest dissatisfaction factor of university academics. One disparity worth noting was

that three interview respondents believed that pay varies between arts and science departments, as they undertook different kinds of projects and programmes which affected their earnings. However, it is interesting to find that there were no significant correlations between pay and subject areas in the questionnaire analysis (shown in Table 4.19). The disparity between findings might be explained in two possible ways. First, the sample was different in interview and questionnaire studies, so results were based on their representative samples. The other possible explanation was that pay varied with subjects, but both science and arts academics had high levels of dissatisfaction with their pay.

Table 4.19: Correlations between pay and subject areas

		subject areas
<i>I am satisfied with my pay</i>	Pearson Correlation	.037
	Sig. (2-tailed)	.602
<i>the pay in relation to the amount of work</i>	Pearson Correlation	.019
	Sig. (2-tailed)	.796
<i>the pay in relation to the post</i>	Pearson Correlation	.045
	Sig. (2-tailed)	.528
<i>the pay in relation to the cost of living</i>	Pearson Correlation	.013
	Sig. (2-tailed)	.855
<i>pay compare outside university</i>	Pearson Correlation	.085
	Sig. (2-tailed)	.237
<i>pay compare inside university</i>	Pearson Correlation	-.053
	Sig. (2-tailed)	.458
<i>the fairness of the pay structure</i>	Pearson Correlation	-.054
	Sig. (2-tailed)	.455

Pay was the factor in the current study which revealed the lowest level of satisfaction among university academics. The similar findings have also been reported by other researchers. For example, in developed countries, studies by Oshagbemi (1997, 1999), Ward and Sloane (2000), McInnes (1999) and Houston *et al.* (2006) all revealed that academics derived job dissatisfaction from the pay factor. In developing countries, findings in Ssesanga and Garrett (2005) and Chimanikire *et al.* (2007) are also consistent

with the results in this study. By comparing the findings across different studies, it could be argued that academics had high expectations of pay in their work regardless of the culture and ethnic background.

Pay is arguably one of the most critical factors in relation to the overall job satisfaction. Mullins (2007) evaluated Maslow's needs theory and considered that some rewards or outcomes at work could satisfy more than one need in his hierarchy, for example, high salary or promotion can be applied to all levels of the motivation hierarchy. Herzberg (1968) regarded salary as a 'hygiene factor' which could induce individual's job dissatisfaction, if absent or deficient. In this study, the findings revealed that academics reported high social status, high social respect, stable income and middle level of pay, but they still had low levels of satisfaction with pay, which is consistent with Herzberg's theory (1968). One possible reason for these results might be explained by the Equity theory (Adam, 1963) which assumed that pay satisfaction is the result of social comparison with other people. A feeling of inequity in pay could cause individual's low pay satisfaction. If Adams' equity theory is applied across the world, it is noted that individualistic cultures place a higher regard on equity, whilst collectivist cultures value equality more than equity (Chen, 1995). Therefore, in the collectivistic Chinese culture (Dimmock and Walker's 2000b, 2000c) (see Section 2.2.2), it is not difficult to find that academics were not satisfied with the pay in this study, as most of the respondents held feelings that their pay was not in proportion to the amount of work they did, the post they held, the high living expenses in this city, and comparisons with people holding similar

qualifications in other industries were not favourable. Results from this analysis also indicated that Western theories can be applicable in the Chinese cultural context.

4.4.4 Job Satisfaction and Promotion

For questions assessing university academics' attitudes to promotion, responses from interviews can be summarized into two categories: promotion system and promotion scale.

When asked, 'What do you think of the promotion system in this university? Is it fair?' seven of the interviewees indicated that it is basically / comparatively fair, but five commented on the lack of justice and fairness of the current promotion system. For example,

T10: As a system it is always in the interests of a certain group and can not be comprehensive. People who benefit from this system would certainly speak highly of it; otherwise others may not like it.

The fierce competition and limited quota sometimes seemed to create negative feelings and consequences for academics' work and collegial relations. In this system, academics voted to decide whether the candidates with the same length of service and similar teaching and research achievements were qualified or not. For this reason, personal relationships with colleagues and management team seemed to be important to gain promotion opportunities. One respondent (T1) complained about this system,

T1: In my opinion, it depends on our own abilities; everyone with qualified ability needs to be promoted. It should not be limited with the quota and the senior management team needs to view it objectively.

Another interviewee (T9) also commented that he was not satisfied with this system because there should be a standard for the competition process and the limitation by quota was unnecessary. The responses reflected that many academics held negative attitudes to the current system of academic evaluation and prospects for promotion. There was a widespread perception that there was some corruption in the promotion system and it will be a long way to go to establish an objectively comprehensive evaluation system.

In terms of promotion scales, academics talked about length of service, teaching and research workloads and achievements. Generally speaking, the number of years' work experience was a determinant factor for promotion. The interval for applying for promotion was five years, except when an individual was distinguished with research achievements. Research was another decisive factor for promotion. Six responses indicated that the more research achievements you obtained, the faster you would be promoted. They also recognized some problems related to this scale. First, it is hard for academics to balance teaching and research work. For promotion, research played a decisive role which negatively affected the passion of those academics devoted to teaching. For example,

T7: Both teaching and research systems are used for the evaluation of promotion, but it's hard to balance them. Research is considered more important than teaching in promotion, which demotivated academics specializing in teaching.

Second, most of academics devoted their time to writing and publishing papers for promotion purposes, but the quality of publications should be doubted. The quantity

requirement for the publication could result in low quality of research.

T1: The university requires an amount of research work which is assessed once a year and is related to the reward. However, it takes several years to work on a high quality project and the quantity requirement could lead to low quality in the research.

Furthermore, as research achievement was deemed as a key condition for promotion, problems arose regarding the lower status of teaching quality. The results showed that a simple scale with quantity of publications for promotion would lead to low teaching and research quality, which raised the consideration of negative consequences. Hence, in data analyses of the promotion factor, responses provided some problems with the promotion system and scale standard, so it is not surprising that academics felt dissatisfied with the promotion factor.

In the questionnaire analysis, Table 4.20 presents the frequencies and cumulative percentage of the satisfaction with promotion factor. It shows 28.1% of the respondents either strongly agreed or agreed with this factor and 32.5% of the respondents either strongly disagreed or disagreed. Interestingly, the largest part of the respondents (39.2%) chose undecided. Although it could be concluded that academics were dissatisfied with the promotion factor, the result was weak due to the large proportion of undecided answers. However, the mean score of 3.0739 and a standard deviation of .94892 strongly supported the result that Chinese academics had low levels of satisfaction with promotion.

Table 4.20: Satisfaction with promotion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	7	3.4	3.4	3.4
	agree	50	24.5	24.6	28.1
	undecided	80	39.2	39.4	67.5
	disagree	53	26.0	26.1	93.6
	strongly disagree	13	6.4	6.4	100.0
	Total	203	99.5	100.0	
Missing	System	1	.5		
Total		204	100.0		
Mean					3.0739
Std. Deviation					.94892

Table 4.21 shows that the satisfaction with promotion factor had significant correlations at the 0.01 level (2-tailed) with all three aspects. The results meant that these three variables played a positive role in forming the satisfaction with promotion. The higher respondents agreed with the three aspects, the higher they were satisfied with promotion factor.

Table 4.21: Satisfaction with promotion correlations

		Satisfaction with promotion
<i>the present promotion system</i>	Pearson Correlation	.692**
	Sig. (2-tailed)	.000
<i>the fairness of promotion system</i>	Pearson Correlation	.746**
	Sig. (2-tailed)	.000
<i>promotion scales</i>	Pearson Correlation	.589**
	Sig. (2-tailed)	.000

** Correlation is significant at the 0.01 level (2-tailed).

Questionnaire results are consistent with interview findings, in that more than half of respondents held negative attitudes to the promotion factor. The findings were in correspondence with other researches, such as studies by Oshagbemi (1997, 1999), Ward and Sloane (1999), Togia (2004) and Ssesanga and Garrett (2005), which revealed that academics had low levels of satisfaction with promotion. This indicated that academics’ dissatisfaction with promotion may be universal, occurring in both developed and developing countries. Academics’ negative attitudes to the promotion might be explained

by some points. One is the close relation between pay and promotion. Promotion would lead to an increase in pay. A perception of inadequate pay might have a strong negative impact on reports of satisfaction with promotion. Dissatisfaction with pay fueled dissatisfaction with promotion opportunities, perhaps as academics seek to compensate for the unsatisfactory pay with higher promotion expectations. Another point worth mentioning is that academics' dissatisfaction with promotion might arise from being unappreciated and unrecognized for their achievements and efforts, which may affect their self-esteem and make them unhappy. Academics expressed their negative feelings about promotion as they felt no way to gain rewards for the excellent performance and great achievements and efforts. Further explanation might be related to concerns about the corruption in the promotion system and the effects of human relationship factors. In this study, some respondents noted that personal relationships with colleagues and decision makers were important for promotion and that the promotion system was injustice, was always in the interests of a certain group and not comprehensive. This feature in Chinese society is described in Dimmock and Walker's (2000b, 2000c) cultural dimension as *holistic relationships* (see Section 2.2.2). In this cultural concept, leaders are more likely to put interpersonal relationships before task achievement and make promotion on basis of a combination of contracts, relationships and performance (Dimmock and Walker, 2002). The interview responses indicated that the fairness and transparency of the promotion procedure were critical for academics' attitudes to the promotion system. It is suggested that decision makers should avoid taking personal relationships into consideration and hold objective views when handling promotion

matters.

4.4.5 Job Satisfaction and Teaching and Research

Teaching and research are primary roles of university academics which significantly impact on their job satisfaction. When talking about the teaching aspect, the majority of interviewees considered teaching workload as moderate, the basic requirement for teaching workload was not too much (for a lecturer it is 180 hours per academic year, for an associate professor 160 hours and for a professor 120 hours). However, three academics held different attitudes and stated that the teaching workload was a little too much which competed with research time, but one (T10) also illustrated that compared with other universities, frankly speaking the teaching workload was at a moderate level.

Another point agreed by academics was that research outranked teaching in the university reward system. The research and publications were essential for promotion which resulted in low teaching quality. Teaching was more difficult to be evaluated than research, although students can appraise academics and score teaching activities. In the university, if the research was over valued, it is rational for academics to concentrate more on research and to the detriment of teaching, and in the long term the quality of teaching would decrease. Academics who wished to get promoted would deliberately spend more time on research. As a result, to some extent, partial teaching efforts were devoted to research.

Academics commented extensively with regard to the research aspect; their views can be summarized as several main issues. First is the assessment of research achievement. Two interviewees complained about the standards used to assess research and stated that university required an amount of research work which was assessed once a year and was related to reward, but it took long time to work on a research project to a high quality. They suggested that it is better to evaluate it over more than one year. Response from another interviewee even indicated,

T4: It was no use to regulate and assess the research workload every year; because the aspirant academics will overwork while others will not for they do not care about the reward.

Another issue most of interviewees commented on was the balance between quality and quantity of research. The quantity requirement from the authority would result in many problems, such as low research quality, low teaching quality, more plagiarism and deception and more stress for academics. For example, one academic (T2) expressed his negative feelings,

T2: The main dissatisfiers were the request for the quantity of workload and the stress derived from it. The quantity requirement restricted the professional development. It took several years to finish an excellent paper, but now it is quite the contrary, we need to publish several papers a year. Under such circumstance, the quality is a big concern.

Another interviewee (T5) held her opinion that higher education required the full devotion of passion from academics. They need to love their jobs and be full of interest to do the research, but not forced to work to meet the quantity requirement.

Two interviewees pointed out a further problem that the coordination between teaching and research fell down sometimes. They commented that teaching and research are interdependent on each other. A teacher can not teach well without the supportive research knowledge; at the same time, when research is applied to teaching, it is useful and practical. However, nowadays sometimes research does not serve for teaching purposes and the two have become separated from each other because the university highlights the importance of research outcomes. Most of the academics work on research for reward and promotion which is inconsistent with teaching purposes. The problem is that academics are not short of the ability to do research, but the result of the research is not practical at all. The comments reflected that the competitive relationship between teaching and research rather than a complementary relationship resulted in many problems which caused academics' dissatisfaction with the job.

In the data of interview transcripts, six academics indicated that their stress mainly came from the research requirement and that the teaching work in comparison was moderate. Hence, from the interview analysis, regarding the problems they mentioned concerning the research aspect, it is possible to conclude that academics had higher levels of satisfaction with teaching than with research.

Table 4.22 presents the frequencies and cumulative percentage of the satisfaction with teaching and research factor from the questionnaire analysis. We can see that 15.7% of respondents gave negative responses to this factor. This indicated that academics had

moderately high levels of satisfaction with teaching and research.

Table 4.22: Satisfaction with teaching and research

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	7	3.4	3.4	3.4
	agree	110	53.9	53.9	57.4
	undecided	55	27.0	27.0	84.3
	disagree	28	13.7	13.7	98.0
	strongly disagree	4	2.0	2.0	100.0
	Total	204	100.0	100.0	
Mean					2.5686
Std. Deviation					.84235

Satisfaction with teaching and research was the last factor to be taken into consideration in this study. Respondents were asked to indicate their levels of satisfaction to four aspects in relation to teaching and research. Table 4.23 shows that all the correlations between satisfaction with teaching and research and four aspects were significant at the 0.01 level (2-tailed). The positive correlations indicated that a high satisfaction with four aspects was more likely to lead to high levels of satisfaction with teaching and research.

Table 4.23: Satisfaction with teaching and research correlations

		Satisfaction with teaching and research
<i>teaching hours per week</i>	Pearson Correlation	.556**
	Sig. (2-tailed)	.000
<i>Research workload</i>	Pearson Correlation	.471**
	Sig. (2-tailed)	.000
<i>Choosing teaching or research as a preference</i>	Pearson Correlation	.195**
	Sig. (2-tailed)	.005
<i>balance the quantity and the quality of research</i>	Pearson Correlation	.226**
	Sig. (2-tailed)	.001

** Correlation is significant at the 0.01 level (2-tailed).

The mean of 2.5686, a standard deviation of .84235 and 57.4 percent satisfaction rate (shown in Table 4.22) all revealed that academics had moderate levels of satisfaction with teaching and research. In the interview analysis, although most of the respondents did not express dissatisfaction directly with their teaching and research, 10 out of 14 interviewees pointed out that they have experienced problems and difficulties in these

aspects. Therefore, the opinions were widely divided depending on individual circumstance and it could not be simply concluded that the findings in interview and questionnaire are consistent with each other. Research in other countries, such as Clark (1999) in the US, Henkel (2000) in the UK and Bellamy *et al.* (2003) in Australia, reported that academics were truly motivated and satisfied with teaching and research, which is to some extent inconsistent with the findings in the current study. However, the argument (Houston *et al.*, 2006) of the ongoing tension between teaching and research particularly in terms of demands on time and variable recognition and rewards, supported the results of this study.

It could be argued that the main roles of the university academics were teaching and research, which were interdependent on each other. When teaching and research were integrated together, the outcomes could be useful and practical. However, a certain number of respondents noted a competitive relationship between teaching and research, not a complementary one. The related problems in teaching and research and the great concern for the quality of higher education raised some academics' negative attitudes to job satisfaction. One possible explanation could be the professional evaluation of the university. A major point of agreement among respondents in this study was that research outranked teaching in the university reward system. Despite the increase of teaching awards and social affirmations of the importance of teaching, it was still the case that pay and promotion continued to depend more on research productivity than on teaching performance. There was little doubt that the university had a high expectation of the

research achievement because it is customary to take research productivity as the criteria for evaluation of academics' work. In this case, there was an obvious separation and competition between teaching and research work in universities. Another possible interpretation is the emphasis of the externally funded research projects. In the process of decentralization and marketisation of higher education (Jiang, 1995; MoE, 2001b), universities have needed to respond to societal pressures and market forces demanding applied research. Research needed to meet the requirement of local government, business leaders, non-governmental organisations, elementary and secondary schools because they provided significant financial support (Willis, 2000). Although on campus teaching and research were academics' foremost tasks, no academics can avoid external research work as it is essential not only for generating extra salaries but for maintaining esteem in the eyes of peers. Thus, it is not surprising to find the competitive relationship between teaching and research in Chinese universities.

4.5 Overall Job Satisfaction

In addition to the factor analysis reported above, levels of overall job satisfaction were measured separately by '1: dissatisfied' to '10: satisfied' scales, from low to high in the questionnaire. Table 4.24 summarizes the descriptive statistics for the overall rate of job satisfaction and Figure 4.4 gives the graphical representation. The mean ($M=7.3$, $SD=1.34$) reveals that the average rate of job satisfaction of this group of respondents is 7.3 out of 10, with a range of 2 to 10. This meant that this group of university academics had different levels of job satisfaction. In general, a mean of 7.3 indicates that they were

satisfied with the jobs and had high levels of overall job satisfaction.

Table 4.24: Overall rate of job satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	dissatisfied	1	.5	.5	.5
	3.00	1	.5	.5	1.0
	4.00	3	1.5	1.5	2.5
	5.00	12	5.9	6.1	8.6
	6.00	27	13.2	13.7	22.3
	7.00	56	27.5	28.4	50.8
	8.00	67	32.8	34.0	84.8
	9.00	24	11.8	12.2	97.0
	satisfied	6	2.9	3.0	100.0
	Total	197	96.6	100.0	
Missing	System	7	3.4		
Total		204	100.0		

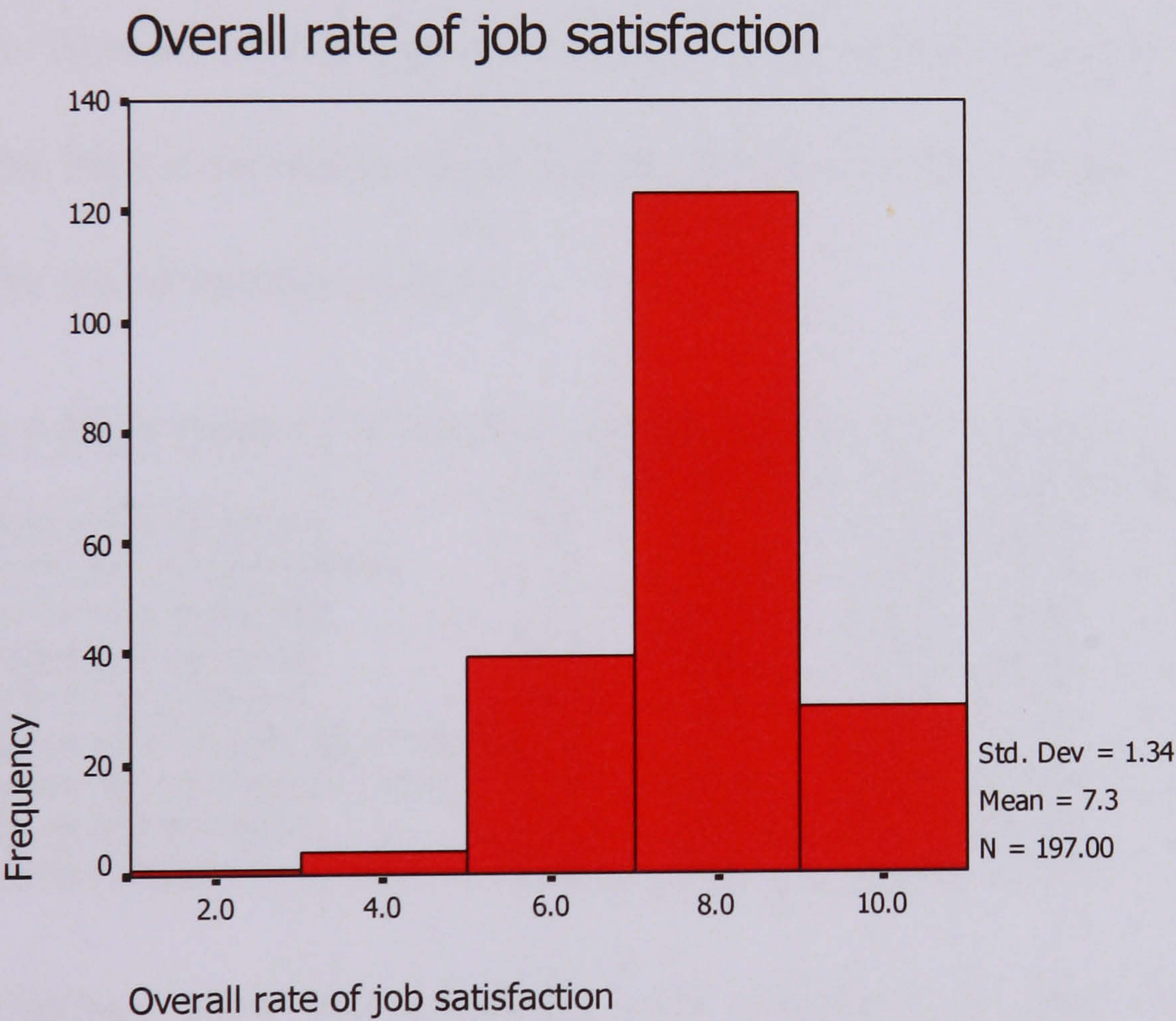


Figure 4.4: Overall rate of job satisfaction

Table 4.25 presents the correlations between overall level of job satisfaction and nine factors. As we can see that significant correlations at the 0.01 level (2-tailed) were found between all job related factors and overall level of job satisfaction.

Table 4.25: Overall satisfaction correlation with the nine factors

	Overall rate satisfaction
Satisfaction with self-esteem	-.386**
Satisfaction with self-efficacy	-.344**
Satisfaction with self-actualisation	-.382**
Satisfaction with flexibility and autonomy	-.367**
Satisfaction with work itself	-.449**
Satisfaction with work group	-.274**
Satisfaction with pay	-.346**
Satisfaction with promotion	-.356**
Satisfaction with teaching and research	-.267**

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.26 represents the descriptive statistics for the levels of job satisfaction in relation to all nine job related factors. The mean statistics of each factor varied from low to high. To better understand these factors, they were presented from high to low satisfaction levels. Then we can see that satisfaction with self-efficacy (Mean=1.9158, SD=.69672) was the highest satisfaction factor and satisfaction with pay (Mean=3.2304, SD=1.0367) was the lowest satisfaction factor.

Table 4.26: A summary of statistics for nine job satisfaction factors

	Minimum	Maximum	Mean	Std. Deviation	Satisfaction Order
Satisfaction with self-efficacy	1.00	4.00	1.9158	.69672	1 (highest)
Satisfaction with self-actualisation	1.00	4.00	2.0490	.74115	2
Satisfaction with work group	1.00	5.00	2.0985	.78359	3
Satisfaction with self-esteem	1.00	4.00	2.1244	.79338	4
Satisfaction with work itself	1.00	5.00	2.2255	.78039	5
Satisfaction with flexibility and autonomy	1.00	5.00	2.4703	.88751	6
Satisfaction with teaching and research	1.00	5.00	2.5686	.84235	7
Satisfaction with promotion	1.00	5.00	3.0739	.94892	8
Satisfaction with pay	1.00	5.00	3.2304	1.03670	9 (lowest)

The findings show that academics were satisfied with their overall level of job satisfaction. This is consistent with studies by Ward and Sloan (1999), Bellamy *et al.* (2003), Oshagbemi (1997, 1999). The results indicated that psychological factors were the most prevalent in Chinese academics’ positive perceptions of job satisfaction, and that pay and promotion influenced academics’ levels of job satisfaction negatively. The high levels of overall job satisfaction might be explained by the possibility that

academics ranked job satisfaction factors higher than job dissatisfaction factors and enjoyed working in the university. Despite the high motivation in the work, the consequences of job satisfaction can not be neglected from the research. This will be discussed in the next section.

4.6 The Consequences of Job Satisfaction

The consequence of job satisfaction was one of the important topics in the interviews. Responses revealed significant negative effects of low job satisfaction, such as turnover and stress. Academic job satisfaction was of growing concern because it had significant implications for the universities through staff turnover and lowered physical and emotional health.

When asked ‘have you ever considered quitting your job if there are some alternative employments to go to or early retirement?’, four older academics agreed that they have considered early retirement (shown in pink in Figure 4.5) and five academics said that they kept the idea that they would like to change a job if they could find a better match (shown in pink in Figure 4.5). Their responses could be explained in two ways. Firstly, the nature of the job (shown in green in Figure 4.5), such as unsatisfactory salary and fringe benefits including house subsidy, unsatisfactory promotion and reward system, pressure from the heavy workload and imbalance of input and output. According to one academic (T7),

T7: I often thought of resigning or retiring when I felt over stressed and frustrated,

especially when a prescribed plan wasn't properly carried out, or when input was not in proportion with output.

Academic job satisfaction fell because of these factors and the likelihood of their intention to leave increased. Another reason affecting their intention to leave was from individuals' own circumstances (shown in green in Figure 4.5), such as illness and personal value. For example, one academic (T8) illustrated his idea to change his job because he was suffering from pharyngitis and laryngitis and could not give very many lectures. Another academic (T13) stated that she thought of early retirement because she planned to travel around which required a long period of time. All the above responses of intention to leave could be summarized in a turnover model shown in Figure 4.5.

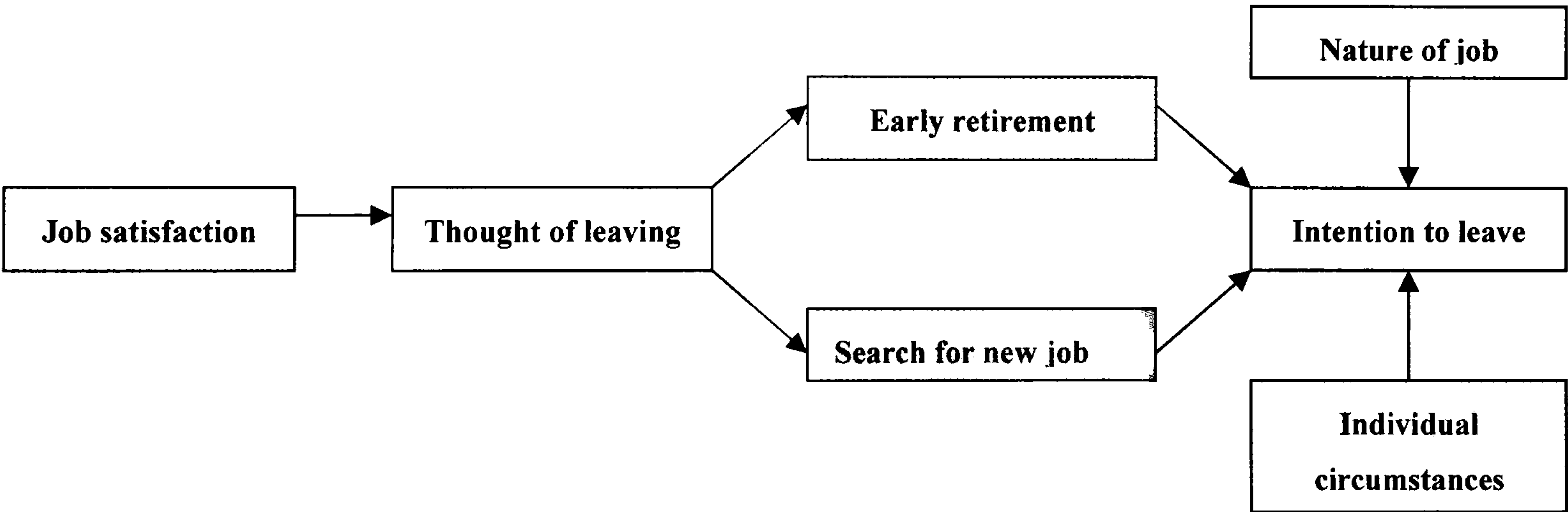


Figure 4.5: Staff turnover model

From the interview transcriptions, we can see that all interviewees reported stress from the work and shared the same feelings as their colleagues. It was revealed that job satisfaction was closely related to stress. It was not simply a cause and effect relationship, but likely to be more complex. Their attitudes to job related stress could be divided into positive and negative aspects. Three academics held positive attitudes to stress and illustrated that they enjoyed work related stress and how it could inspire and motivate them to work. It was found that academics holding positive attitudes to stress were

enthusiastic about their work and obtained a degree of satisfaction, enjoyment and responsibility and challenge from the job as well as the stresses.

On the other hand, most academics held negative attitudes to work stress. This kind of stress was seen to erode their well-being. Five academics commented that they could not sleep well when they had urgent tasks, when they carried out projects or when they prepared lectures. Five interviewees commented on physical and psychological burnout.

For example,

T8: In fact I have already suffered some (physical disease), such as pharyngitis and laryngitis. It's the occupational disease. Two former colleagues of mine can not work any more because of pharyngitis.

T2: Most of academics felt stressed from the work and dissatisfied with it. Doing research required long time computer work, it was rather tired and I suffered the pain in my back for a long time. Our vacation was always fully occupied with translation and paper revising work. Sometimes I also felt tingling in my right hand. It was reported that 80% academics suffered from neck hyperplasia, and their life span was the shortest.

One interviewee (T1) even pointed out that the main job dissatisfaction was the heavy workload and the stress derived from it. Five academics have thought of early retirement or of finding a better job match because of the stress. The comments reflected the fact that academics' job satisfaction levels have been eroded because of stress, with serious consequences for their physical and psychological health.

In the questionnaire, the consequences of job satisfaction were examined in the same five-point Likert scale as job related factors. In Chapter 2, we considered some consequences of job satisfaction such as staff turnover and stress. To investigate the

impact of the degree of job satisfaction on these factors, the respondents were asked to indicate their agreement or disagreement with eight aspects. Table 4.28 shows that the overall rate of job satisfaction had significant correlations with two stress aspects at 0.05 level (two-tailed), and correlated with other aspects at 0.01 level (two-tailed) significantly. In Table 4.27, the findings reveal that academics agreed with the first four aspects, but means 2.8284 to 2.9902, indicate that negative effects were not apparent. Relative to the last four aspects, respondents held the disagreements to them. Generally speaking, academics were satisfied with their jobs and job related negative effects were not obvious.

Table 4.27: Descriptive Statistics of the consequences of job satisfaction

	Agreed (percentage)	Undecided (percentage)	Disagreed (percentage)	Mean	SD
finding a job outside the university	41.7	30.4	28.0	2.8284	.94425
physical problems because of the stress	44.1	20.6	35.3	2.8578	1.15088
psychological problems because of the stress	34.5	28.1	37.4	2.9901	1.12131
finding a job in other universities	31.4	38.2	30.4	2.9902	.89327
changing a job for income reason	28.9	28.4	42.6	3.1225	.97742
changing a job for stress reason	23.6	28.1	48.3	3.2611	.96770
an early retirement	20.3	22.3	57.4	3.4752	.99345
intended to quit the job	17.2	27.5	55.4	3.4804	.92295

Table 4.28: Correlations between consequences of job satisfaction and overall level of satisfaction

		Overall rate satisfaction
finding a job outside the university	Pearson Correlation	.296**
	Sig. (2-tailed)	.000
finding a job in other universities	Pearson Correlation	.242**
	Sig. (2-tailed)	.001
changing a job for income reason	Pearson Correlation	.349**
	Sig. (2-tailed)	.000
changing a job for stress reason	Pearson Correlation	.190**
	Sig. (2-tailed)	.008
intended to quit the job	Pearson Correlation	.223**
	Sig. (2-tailed)	.002
an early retirement	Pearson Correlation	.214**
	Sig. (2-tailed)	.003
physical problems because of the stress	Pearson Correlation	.151*
	Sig. (2-tailed)	.035
psychological problems because of the stress	Pearson Correlation	.180*
	Sig. (2-tailed)	.012

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The findings in the interview and questionnaire analysis are consistent with each other. Although most of the academics commented on negative effects from their job in terms of their desire to change the job or take early retirement and physical and psychological stress, they are not over-riding negative factors.

These results were contrary to studies by Ingersoll (2003), Wall, Clegg and Jackson (1978) and Dua (1994) which revealed that staff turnover and high job stress were associated with high job dissatisfaction. It is interesting to find in this study that most academics had positive overall job satisfaction even though there were some negative consequences from their jobs. The possible explanations might be that job satisfaction factors outranked dissatisfaction factors and that academics had the high motivation and enjoyment from work.

4.7 Summary

In this section what has been discussed in this chapter will be put together and a substantive model will be offered with regard to the interrelationship between job satisfaction factors of Chinese academics.

4.7.1 Satisfaction and Dissatisfaction Factors

To separate factors as satisfaction and dissatisfaction for analysis, the five-point Likert scale was collapsed into three categories. The researcher put 1-‘strongly agree’ and 2-‘agree’ into one category as ‘Satisfaction factors’, 4-‘disagree’ and 5-‘strongly

disagree' as 'Dissatisfaction factors'. Table in Appendix 6 presents the percentage of all the factors in terms of 'Satisfied', 'Undecided' and 'Dissatisfied'.

Based on the data from the questionnaire presented in Table in Appendix 6, a summary of the factors contributing to Chinese academics' satisfaction and dissatisfaction can be viewed in Table in Appendix 7. Reports from the whole sample showed that over three quarters of academics were satisfied with self-esteem, self-efficacy, self-actualisation, work itself and work group. In contrast, only 28.1% of academics were satisfied with pay and 26.0% with promotion. It is possible to conclude that academics' satisfaction factors are self-esteem, self-efficacy, self-actualisation, work itself, work group, teaching and research; dissatisfaction factors are pay and promotion. Similar results have been drawn in studies by Ward and Sloane (1999), Bellamy *et al.* (2003) and Houston *et al.* (2006) in developed countries, in which they concluded that although academics were required to work in an increasingly demanding environment, they valued intrinsic factors more than extrinsic ones.

Chinese academics seemed to have high levels of satisfaction with intrinsic job factors, particular psychological ones, and were dissatisfied with the extrinsic job factors of pay and promotion. These results did not correspond with Maslow's (1970) Hierarchy of Needs Theory that if lower order needs (extrinsic) factors are not met, higher order needs (intrinsic) factors are not likely to come into play as sources of satisfaction. However, the results of Alderfer's (1972) study suggested that low-level needs do not have to be

satisfied before higher-level needs emerge as a motivating influence. Therefore, the results in this study were rational. With regard to university academics, a highly educated group, the drive for creativity and self-actualisation may arise despite lack of satisfaction with pay. This special group may be more motivated by the intrinsic rewards of work such as challenge, creativity, personal growth, and personal accomplishment rather than by the jobs that simply provide an income. Tampoe (1993) illustrated that the top four important satisfaction factors for knowledge workers, and it could be argued that university academics fit into this category, are personal growth, work flexibility and autonomy, personal achievement and rewards. For university academics, with long term commitments to knowledge creation and knowledge transmission and continuously engaging in exploring the truth, the pursuit of higher order needs appears more important than money in motivating them to stay in this job.

Factors contributing to academic satisfaction

Table in Appendix 6 and Appendix 7 shows that psychological factors were the most prevalent in Chinese academics' perceptions of job satisfaction; this is concurrent with Herzberg's dichotomy (1968). Since most academics faced several years of extended study before taking a position in a university, the cumulative knowledge they have acquired prior to this might bring them a greater sense of self-efficacy. This indicated that academics perceived sense of competence was a source of intrinsic motivation and job satisfaction. As noted above, with academics, as highly educated knowledge workers, it is not surprising to find a high level of satisfaction with self-actualisation which may

reflect their desire to achieve the full realization of their potential. Chinese academics' high levels of satisfaction with self-esteem might be attributed to the fact that academics' sense of recognition and increasing status was related to the process of Chinese higher education reform in recent years (Willis, 2000). The increasing internationalization of Chinese higher education (Kang, 2004) might bring academics greater opportunities to study abroad and communicate and cooperate with world-wide universities, this might help academics build up reputation worldwide and achieve personal accomplishment. The improvement of the social status and social recognition might bring them great satisfaction with self-esteem.

Despite recent changes in higher education, teaching and research remained as the main roles of university academics. The traditional values of higher education, academics' flexible working arrangements in terms of working time, working location and the pattern of working, were still considered as distinguishing features of university work. Not surprisingly, the findings show academics to be satisfied with teaching and research, flexibility and autonomy.

The work itself was considered as an important factor related to individual's job satisfaction. Congruent with Herzberg's (1968) Two-Factor Theory, the finding of this study revealed that Chinese academics were satisfied with the job content, including work challenge, work responsibility, variety of work and the opportunities to utilize their ability. However, in relation to job context aspects, such as work condition and

professional development, academics still revealed positive attitudes, given that Chinese academics ranked the work itself high on their satisfaction list.

Another inconsistent finding with Herzberg's theory is academics' satisfaction with the extrinsic factor of the work group. This result might be attributed to the fact that Chinese society has long been known for its emphasis on *Guanxi* (relationships) as a guiding principle of social organisations (Cheng and Rosett, 1991; Fei, 1992). In Chinese culture the collective is always regarded greater and more important than the individual (Hsiao, 1988): self is identified, recognized and evaluated when considered in relation to groups and communities they belong to.

Factors contributing to academic dissatisfaction

Among the dissatisfaction factors a high scoring was derived from pay and promotion (see Table in Appendix 6 and Appendix 7). Herzberg (1968) regarded salary as a 'hygiene factor' which could induce individual's job dissatisfaction when absent. In this study, the findings show that academics reported high social status, high social respect, but they still had low levels of satisfaction with pay. Academics' comparison of their pay provided the greatest influence on reports of their job dissatisfaction. It is not difficult to find that a feeling of inequity in pay causes academics' low pay satisfaction, as most of the respondents held feelings that their pay was not in proportion to the amount of work they did, the post they held, the high living expenses in this city and comparisons with people holding similar qualifications in other industries were not favourable.

This perception of inadequate pay might have a strong relationship to satisfaction with promotion. Dissatisfaction with pay fueled dissatisfaction with promotion opportunities, perhaps as academics seek to compensate for the unsatisfactory pay with higher promotion expectations. In addition, 38.8% (see Table in Appendix 6) disagreement with promotion fairness implied that the current promotion system in university may benefit a certain group of people and was not fair to all. It might be related to concerns about corruption in the promotion system and the effects of human relationship factors. It could be argued that personal relationships with colleagues and decision makers may be important for promotion and the promotion system was lack of justice. This indicated that the fairness of the promotion procedure was critical for academics' attitudes to promotion system.

It is noted that Chinese academics held negative attitudes to the low pay and the limited promotion prospects. Considering their qualifications, it would be expected to find low level of overall job satisfaction among this group. However, the recorded levels of their overall satisfaction were high. About 91.4 percent respondents in the questionnaire and 93.3 percent in the interview stated that they were satisfied with the job. Such level of satisfaction was quite high in human behaviour in any organisational settings. Generally speaking, intrinsic factors seemed more important than extrinsic factors to motivate academics in the work. Academics had a high degree of control over intrinsic factors and had a limited control over extrinsic factors, but the results do not wholly support Herzberg's (1968) Two-Factor Theory.

4.7.2 Interrelation between Job Satisfaction Factors

The relationships between personal characteristics, intrinsic factors and extrinsic factors which relate to job satisfaction have been touched upon in several places previously in this chapter. Nevertheless, it is important to repeat the key findings with regard to these relationships. As far as personal characteristics are concerned, researchers such as Sloane and Williams (1996), Davis (2002), Sipon (1997), Oshagbemi (1997, 1999, 2000), Tu *et al.* (2005), Ssesanga and Garrett (2005) and Lacy and Sheehan (1997) have identified a range of personal characteristics including age, gender, time in post, length of service as aspects of the academics which have a part to play in job satisfaction. In the current study (discussed in Section 4.2), it has been revealed that no specific personal characteristics emerge as being particularly important relating to overall job satisfaction. This meant that each of the personal characteristics did not affect overall job satisfaction significantly. However, the correlations between personal characteristics and nine job satisfaction factors (shown in Table 4.3) show that age had significant influence on job satisfaction concerning self-esteem and self-efficacy, which indicated that older academics perceived higher levels of satisfaction related to these two factors. Certainly it was noted in Section 4.2, there is substantial support from cultural issues for this result. In the Chinese culture older academics are always respected because of their age regardless of the position (Dimmock and Walker, 2000d). Although post and subject areas did not correlate with any job satisfaction factors in the questionnaire analysis, there is a high possibility that strong associations exist, as interview participants commented their significant influences on pay. For example, several of the academics interviewed commented that higher post

associates with higher pay and that science academics can earn more than academics majoring in art. In this respect, Figure 4.6 shows these interrelations, which indicate that personal characteristics influence academics' perceptions on both intrinsic and extrinsic job related factors.

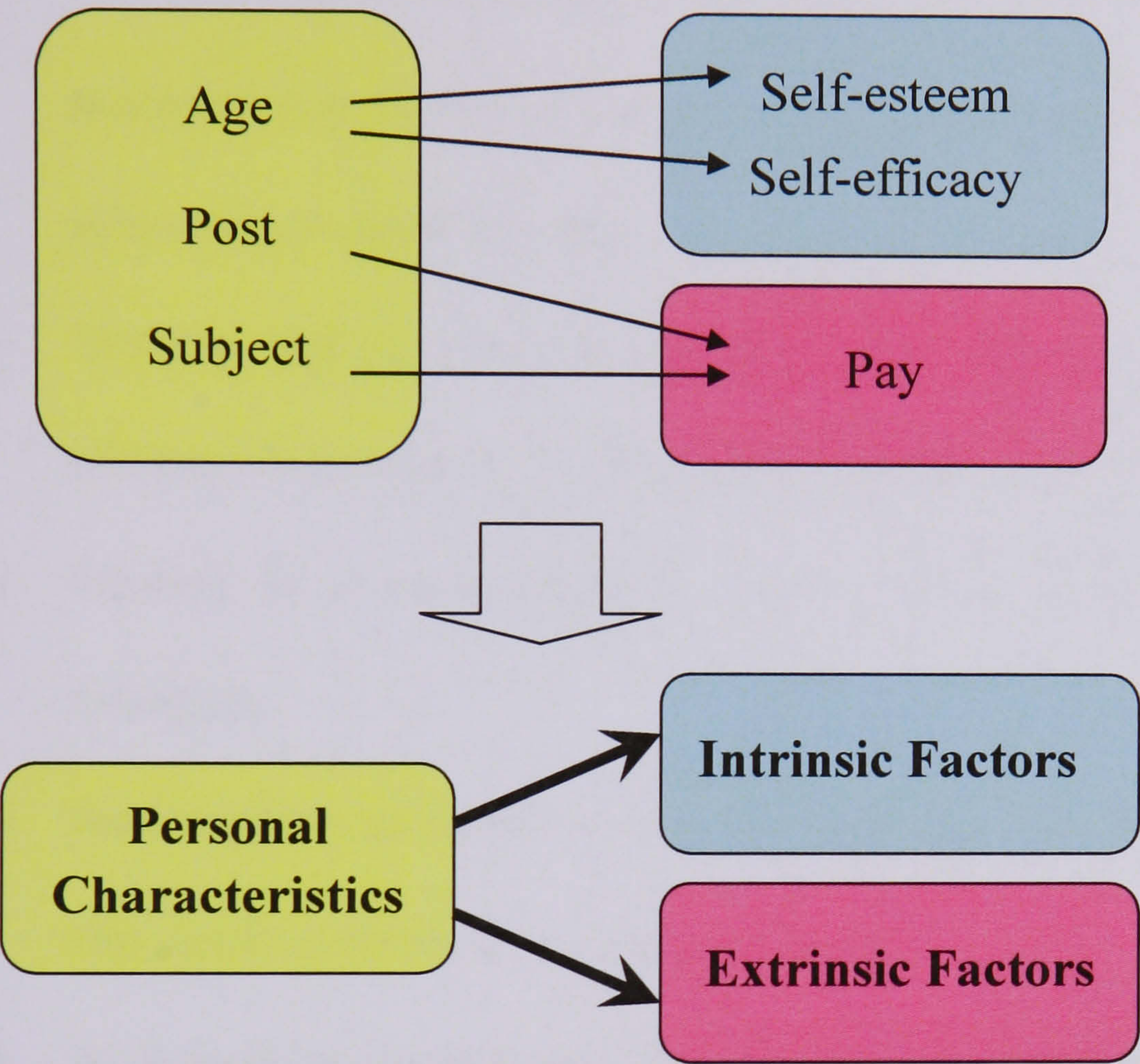


Figure 4.6: Interrelation between personal characteristics and intrinsic and extrinsic factors

Relative to intrinsic and extrinsic job related factors, the researchers cited above have also identified a number of factors which would appear to be of importance in terms of job satisfaction, including flexibility and autonomy, self-actualisation, relationships in schools, job challenges and responsibilities, pay, promotion prospects, teaching and research, etc. Of these, intrinsic factors were mostly reported to be more important than extrinsic factors to motivate academics in their work. However, few of these researchers investigated the relationship between intrinsic and extrinsic factors. In the current study,

it was found that there were significant correlations between these factors (see Section 4.3 and 4.4). One factor could have a strong relationship with other factors and may affect academics' perceptions with job satisfaction. As these interrelations have been discussed previously in this chapter, key findings are repeated here. For example,

- The dissatisfaction with promotion may be related to the decrease in self-esteem, as academics may be disappointed for being unappreciated and unrecognized for their achievements and efforts made.
- Teaching and research achievements may affect academics' self-esteem, as academics may seek for social recognition and respect from their achievements.
- Working in a team effectively may increase academics' self-esteem among colleagues.
- Work itself has strong relationship with flexibility and autonomy in terms of working time, teaching methods and teaching content.
- Work itself has strong relationship with self-actualisation, as academics may seek to develop and realize their full potential from the nature of work.
- Strong sense of self-efficacy may help academics to work well.
- The dissatisfaction with pay may fuel dissatisfaction with promotion, as academics may seek to compensate for inadequate pay with high promotion opportunities.
- Realizing self-actualisation may associate with the increase in pay.

All these interrelations can be seen in Figure 4.7 which indicates that intrinsic and extrinsic job related factors have a strong relationship with each other. When these

correlations were checked in the questionnaire analysis, there were significant associations (shown in Table 4.29). This implies that job related factors have strong relationships and together impact on academics' job satisfaction.

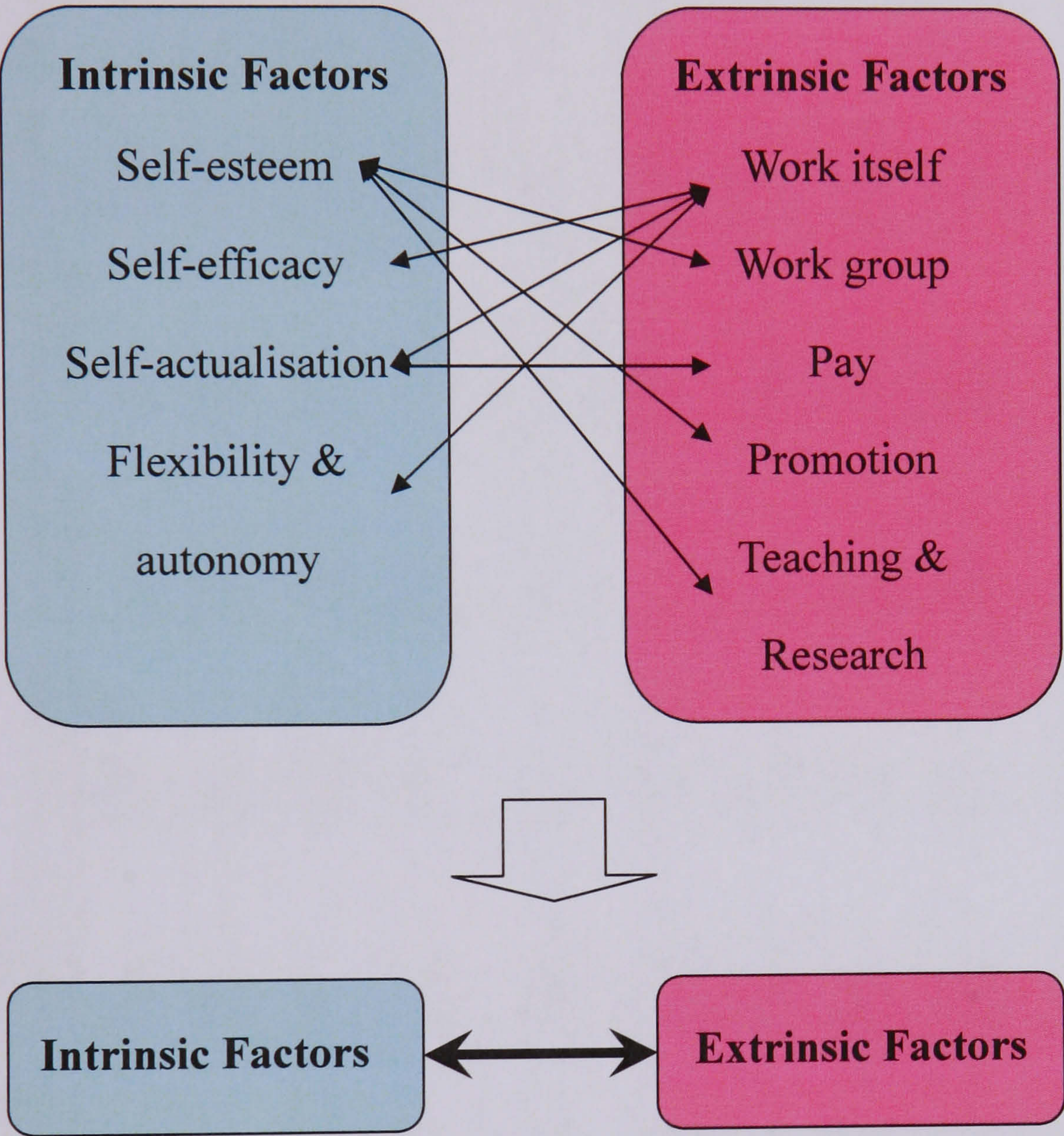


Figure 4.7: Interrelation between intrinsic and extrinsic factors

Table 4.29: Correlations between intrinsic and extrinsic factors

		Satisfied with self-esteem	Satisfied with self-efficacy	Satisfied with self-actualisation	Satisfied with flexibility and autonomy	Satisfied with work itself	Satisfied with work group	Satisfied with pay	Satisfied with promotion	Satisfied with teaching and research
Satisfied with self-esteem	Pearson Correlation	1	.467**	.545**	.469**	.459**	.230**	.243**	.263**	.224**
	Sig. (2-tailed)		.000	.000	.000	.000	.001	.001	.000	.001
Satisfied with self-efficacy	Pearson Correlation	.467**	1	.508**	.377**	.311**	.125	.061	.197**	.141*
	Sig. (2-tailed)	.000		.000	.000	.000	.078	.385	.005	.045
Satisfied with self-actualisation	Pearson Correlation	.545**	.508**	1	.430**	.509**	.206**	.299**	.283**	.152*
	Sig. (2-tailed)	.000	.000		.000	.000	.003	.000	.000	.030
Satisfied with flexibility and autonomy	Pearson Correlation	.469**	.377**	.430**	1	.416**	.144*	.336**	.326**	.331**
	Sig. (2-tailed)	.000	.000	.000		.000	.041	.000	.000	.000
Satisfied with work itself	Pearson Correlation	.459**	.311**	.509**	.416**	1	.345**	.514**	.484**	.374**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
Satisfied with work group	Pearson Correlation	.230**	.125	.206**	.144*	.345**	1	.261**	.316**	.232**
	Sig. (2-tailed)	.001	.000	.000	.000	.000		.000	.000	.001
Satisfied with pay	Pearson Correlation	.243**	.061	.299**	.336**	.514**	.261**	1	.541**	.487**
	Sig. (2-tailed)	.001	.385	.000	.000	.000	.000		.000	.000
Satisfied with promotion	Pearson Correlation	.263**	.197**	.283**	.326**	.484**	.316**	.541**	1	.452**
	Sig. (2-tailed)	.000	.005	.000	.000	.000	.000	.000		.000
Satisfied with teaching and research	Pearson Correlation	.224**	.141*	.152*	.331**	.374**	.232**	.487**	.452**	1
	Sig. (2-tailed)	.001	.045	.030	.000	.000	.001	.000	.000	

** Correlation is significant at the 0.01 level (2-tailed).

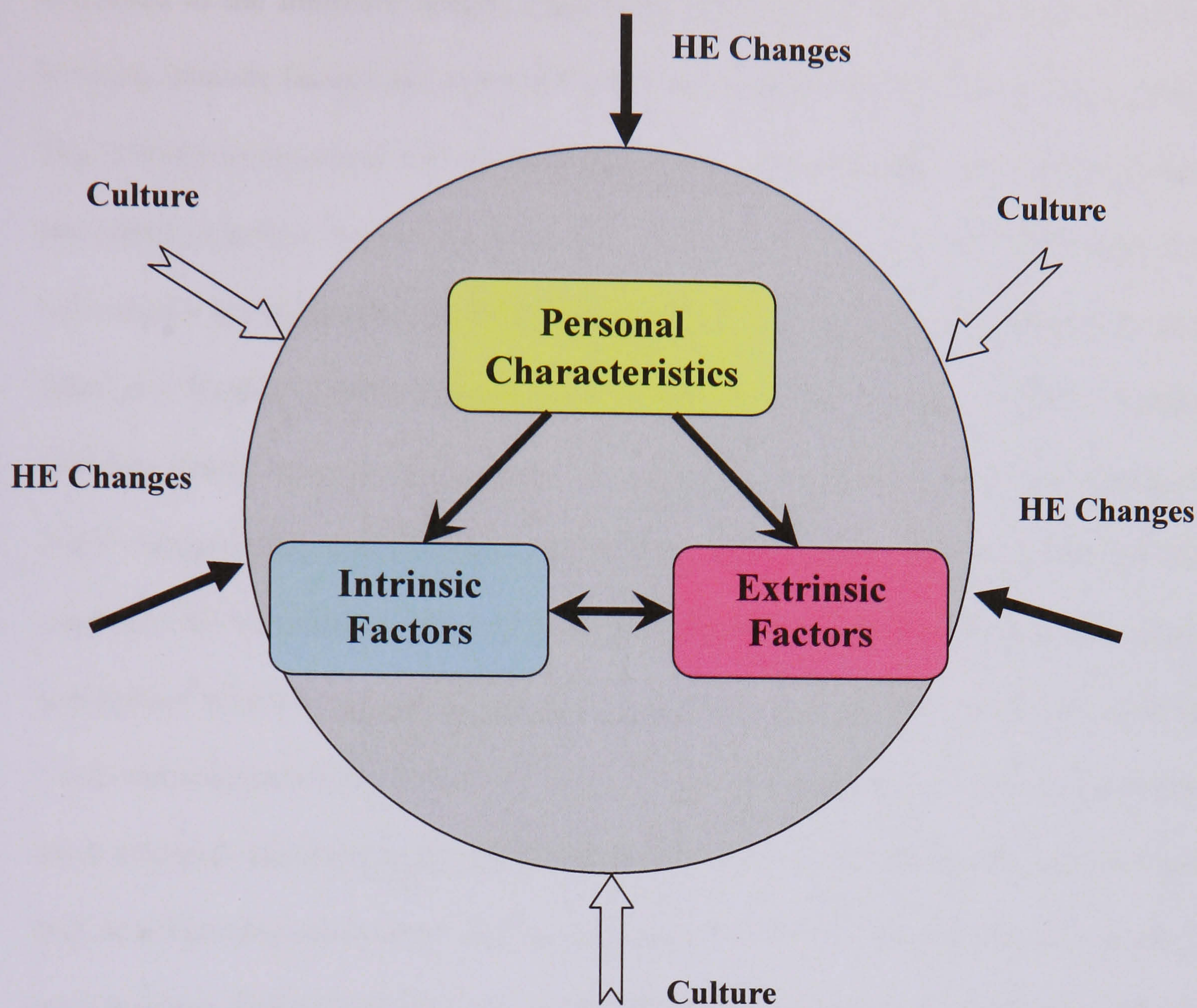
* Correlation is significant at the 0.05 level (2-tailed).

Furthermore, it is also important to note that the situation faced by Chinese academics was sufficiently different from that faced by Western academics, as all these factors were influenced by Chinese higher education changes in recent years and the cultural context of China. Once again, they have been examined in detail earlier in this chapter and the main elements are repeated here. Arguably the Chinese higher education changes in recent years (see Chapter 1) have had a tremendous impact of forces external to academics' job satisfaction. The implementation of Project 211 (MoE, 2001b) aimed at strengthening 100 Chinese universities, and these universities have received higher levels of funding, support, status and recognition from the state, local governments and higher education institutions (MoE, 2001b). The different investment in various universities may affect academics' job satisfaction related to their self-esteem and pay. Higher education changes have also influenced academics' job satisfaction with teaching and research, flexibility and autonomy in terms of long working hours, increased evaluation and assessment and stresses of 'wearing three hats' - teaching, research and administration (Mohrman, 2003).

- The expansion of enrollment requires academics to offer more comprehensive lectures to larger classes;
- Internationalization and decentralization demand academics to enlarge publications in international journals and to absorb funds from different funding bodies;
- The administrative role assigned to academics keeps the best teachers away from teaching and research and involves them in great pressure.

As far as culture is concerned, Dimmock and Walker (2000b, 2000c, 2000d) classified Chinese cultural concept as *power-concentrated, group-oriented, holistic relationships, consideration, replicative and fatalistic*. These cultural factors may affect Chinese

academics' perceptions of job satisfaction. For example, in *power-centered* culture, university leaders tended to prevail over the school level decisions and managerial tasks, while academics' participation seemed to be uncommon and there was limited communication between administration group and academics. The impersonal regulations and the quantitative requirement mentioned by interviewees may cause their dissatisfaction with work. *Group-oriented* and *holistic relationships* features may affect academics' job satisfaction with the work group as the collective is always regarded greater and more important than the individual. Similarly, they may also influence academics' perceptions with the promotion system as emphasizing interpersonal relationships may lead to concerns about corruption in promotion. Therefore, it could be argued that Chinese higher education changes and cultural context have significant impact external to academics' job satisfaction. These interrelationships are shown in an adaptation of the original conceptual framework in Figure 4.8.



Higher Education Changes	Culture
Project 211	Power-distributed/power-concentrated
Expansion	Group-oriented/self-oriented
Decentralization	Consideration/aggression
Marketization	Proactivism/fatalism
Privatization	Generative/replicative
Amalgamations	Limited relationship/holistic relationship
Curriculum Reforms	
Pedagogy Innovation	

Figure 4.8: Interrelations between factors

Before moving on to the conclusion, it may be useful to examine Chinese academics’ job satisfaction by relating the research findings to some models which have already been introduced in Chapter 2.

One of the important models is that of Herzberg’s (1968) Two-Factor Theory. As has been

explained in the literature review, Herzberg's (1968) dichotomy argued the relationship between intrinsic factors and job satisfaction and extrinsic factors and job dissatisfaction. The findings in this study seemed to provide some support to this view of job satisfaction that intrinsic factors can cause individual's job satisfaction and extrinsic factor can induce individual's job dissatisfaction. This has also been reported by other researchers such as Ward and Sloane (1999), Bellamy *et al.* (2003) and Houston *et al.* (2006). Herzberg's satisfiers named motivators relating to the content of job: achievement, recognition, work itself, responsibility and advancement can all be identified in the job satisfaction factors generated in this research. Moreover, there are many other intrinsic factors relating to job satisfaction which could add to this list. In particular, it could be argued that satisfaction could also originate from self-efficacy, flexibility and autonomy. As far as hygiene factors are concerned, Herzberg's dissatisfiers relating to the context of the job: company policy and administration and salary can be identified in the data collected for this study. The only hygiene factor which was not included in this research was supervision. However, Herzberg's theory did not fully explain the Chinese academics' perceptions of job satisfaction in this study. Relative to interpersonal relations and working conditions noted by Herzberg as dissatisfiers, Chinese academics expressed their positive attitudes to them. It may be attributed to the cultural roots that *collective* and *holistic relationships* (Dimmock and Walker, 2000b, 2000c, 2000d) were regarded greater and more important than the individual in Chinese society: self is identified, recognized, evaluated when one relates to groups and communities they belong to (Hsiao, 1988). Perhaps also the work conditions faced by individuals in industry were different from those faced by Chinese academics. The traditional values of higher education, academics' flexible working arrangements in terms of working time, working location and the pattern of working, may cause academics' great job satisfaction.

Considering the models examined in the literature review, other important issues can be considered with respect to Adams' (1965) Equity Theory and Vroom's (1964) and Porter and Lawler's (1968) expectancy theories. It was noted from the literature that expectancy theories are closely linked, that both of them deal with the individual's perception of what they desire to achieve from work and what they obtain from work, which provides a way to estimate how much effort an individual would put into performing a task (Robbins, 1983). It would also appear that expectancy theories and equity theory are related, which was suggested by Locke (1976) who proposed that the theories involve two different levels of explanation of the same thing, with expectancy theory positing a model of job satisfaction with equity theory providing the content for that model. From Table 2.4 (see Section 2.4.4), it could be concluded that all these theories are closely linked, and that all of them touch upon the individual's perception of job satisfaction. A consideration of the interview and questionnaire data in this study seemed to support the view that all the job related factors affected overall job satisfaction. It was noted for example that when the pay was considered to be not equal with respect to the amount of work they did, the post they held, the living expense in the city and the people holding similar qualifications in the same or other industries, job dissatisfaction was a consequence. Another point which is worth mentioning is the level of fairness which academics perceived on their promotion prospects. The unfairness and the corruption of the promotion system caused academics' job dissatisfaction. Although all the models examined in Chapter 2 were considered to be important and of great interest to explore the job satisfaction, they only commented on the relative importance of individual job related factors in the overall picture and none of them specified the interrelationships between these factors. This study developed this point which allowed educationalists and policy maker to increase academics' job satisfaction further. This will be considered in the final chapter.

To sum up, data collected from interviews and questionnaires indicated that various factors seem to have a direct effect on Chinese university academics' job satisfaction. Job satisfaction had significant correlations with all intrinsic and extrinsic factors at a 0.01 level (two-tailed) (shown in Table 4.25). The findings showed that the factors that prompted academic job satisfaction related to psychological factors, work itself and work groups, while the factors that contributed to dissatisfaction were related to pay and promotion. Generally speaking, the high order needs (intrinsic) tended to be dominant in the Chinese university setting, contributing to high levels of overall job satisfaction. It could be concluded that Chinese university academics were satisfied with the overall levels of job satisfaction, although not with pay and promotion. In the final chapter, the conclusion will be given based on all data analyses and discussion and the implications, limitations and recommendations for policy makers and educational researchers will be also provided.

CHAPTER 5 - Conclusion

5.1 Introduction

This study has investigated job satisfaction among university academics in China. Academic job satisfaction is concerned with the affective reaction of an academic to his or her work. Many research investigations of job satisfaction have related their findings to the Western context, however, it is still relatively unclear how academics feel about their work and what accounts for this in China. It is, therefore, important to carry out this research in the Chinese culture context to test the generalisability of Western organisational theories.

This topic has been examined using a mixed methods approach exploring academics' personal characteristics, job related intrinsic and extrinsic factors as well as the consequences of job satisfaction in universities. The findings from interviews and questionnaires revealed that various factors seem to have a direct effect on Chinese university academics' job satisfaction. All of these factors have been identified during the analysis stage and the interrelations can be found in Table 4.29 and Figure 4.8 which enable identification of areas in need of improvement. The consequences of job satisfaction raised the consideration of the negative impact of the job, which led to many of the recommendations in this study.

This chapter comprises the conclusion of this study. Firstly, research findings and the

contribution to the field will be given. Next, the recommendations for policy makers and educational researchers are summarized. Thirdly, it looks at the limitations of this study. Then it moves to suggestions arising from this study which will provide a foundation for further research in this area. Finally, the conclusion of the current study is given.

5.2 Contribution to the field

The Chinese higher education system is experiencing a difficult process of change that is impacting significantly on employees. This has meant that university academics have to do complex work in an increasingly demanding environment. The issue of their job satisfaction is of growing concern because it has significant quality implications for universities. Although much of the research into job satisfaction has been carried out in the Western world, there is a limited amount of research concerning the levels of academic job satisfaction in China. This study explores the idea that the influences upon this factor are culture related.

The motivation theories and previous job satisfaction research (for example, studies by Evans, 1997a, 2000; Oshagbemi, 1997, 1999; Ward and Sloane, 1999; Bellamy *et al.*, 2003; Houston *et al.*, 2006; Lacy and Sheehan, 1997) in the educational field provided a valuable basis for the current investigation. The literature review identified factors that influence academics' job satisfaction. A mixed methods approach was deemed as the most appropriate to answer the research questions. Semi-structured interviews and self-completion questionnaires were used to secure academics' perceptions of job

satisfaction from Chinese universities.

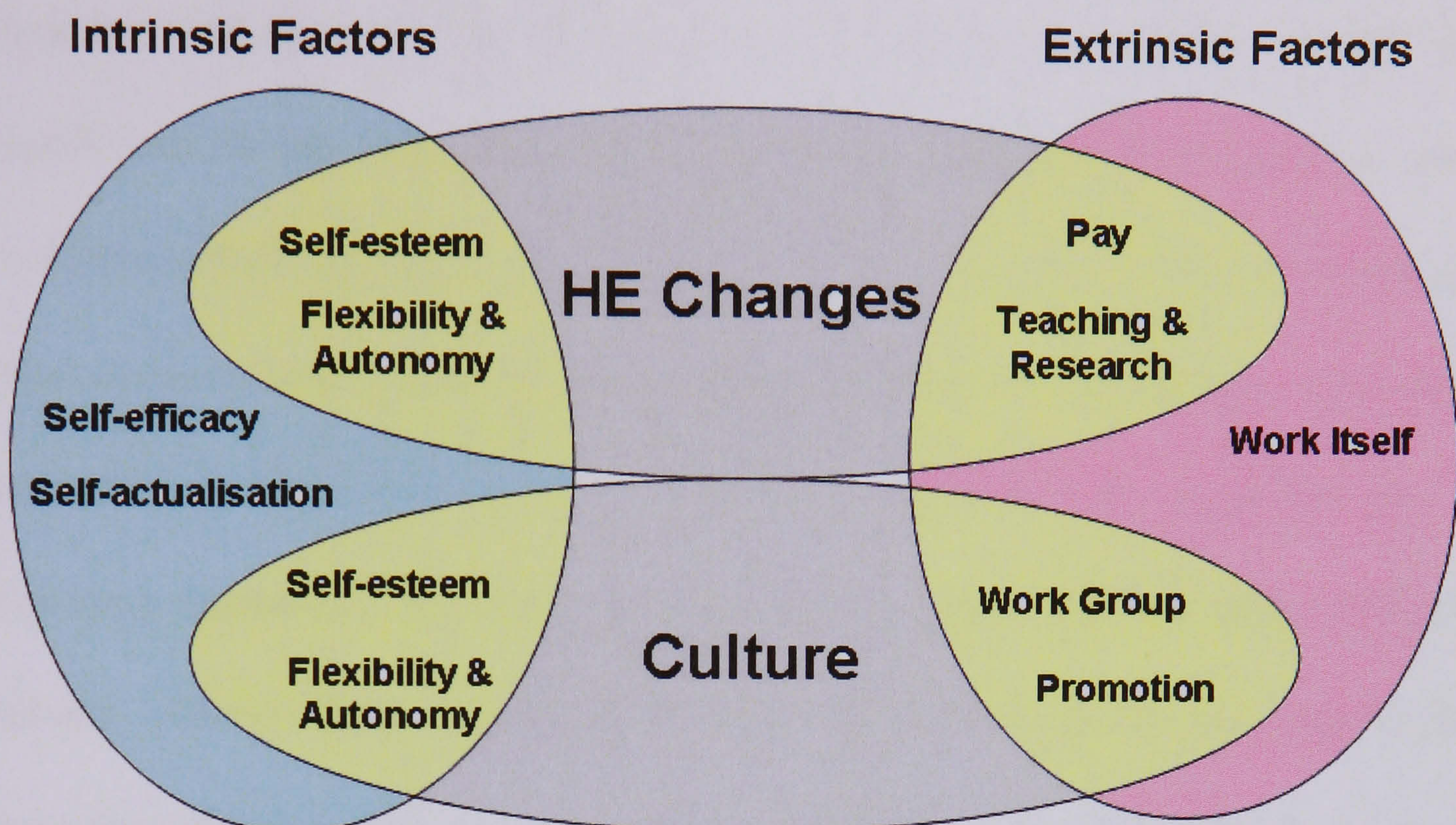


Figure 5.1: The impact of higher education changes and culture to job related factors

The findings have indicated that Chinese higher education changes and culture have significant external impacts upon academics' job satisfaction (as shown in Figure 5.1 above). In terms of higher education changes, the different investment in various universities with regard to the implementation of Project 211 (MoE, 2001b) has affected academics' attitudes to self-esteem and pay. The findings have also shown that academics' job satisfaction relating to flexibility and autonomy, teaching and research has been influenced by higher education changes in respect of enlarged class size, long working hours, increased evaluation and assessment and stresses. It is important for universities to be aware of the influences of the higher education changes to academics from the findings of this study.

The findings have revealed that cultural factors, such as *power-concentrated*, *group-oriented*, *holistic relationships*, have significant influences on Chinese academics' perceptions of their work. For example, in *power-concentrated* Chinese society, older academics are always respected because of their age regardless of the position, which may influence their perception with self-esteem. University leaders tend to prevail over general decisions and managerial tasks, while distributed power through school-based management is hard to achieve by academics. The impersonal regulations and the quantitative requirement mentioned by respondents indicated that lack of flexibility and autonomy caused their dissatisfaction with work. *Group-oriented* and *holistic relationships* features may affect academics' satisfaction with their work group, as the collective is generally regarded as greater and more important than the individual. Similarly, these factors may also influence academics' perceptions of the promotion system, as an emphasis on interpersonal relationships may lead to concerns about corruption over promotion. As these cultural effects are particularly relevant to China, it is important for management teams to take them into consideration in the decision making process.

Furthermore, although previous motivation and job satisfaction theories (see Chapter 2) were considered to be important and of great interest to explore job satisfaction, few of them investigated the interrelationships between intrinsic and extrinsic factors. As this study developed this relationship, it is important for educationalists and policy makers to use the outcomes of this study to identify areas in need of further improvement.

Therefore, it could be said that the present study has been able to provide insights into academics' job satisfaction in China, and thereby into the field of job satisfaction in general. This study has also filled a gap particularly in the field of job satisfaction in China in the light of higher education changes and the Chinese culture, and has opened the gates to new thoughts and studies.

5.3 Implications of the study

Although there are many limitations of the study open to challenge by other researchers, the findings of the current study offer a valuable contribution to job satisfaction research in Chinese higher education. Massive changes in the higher education system of China have led to rising expressions of concern over the motivation of university academics. The implications derived from the present study could help to find ways to boost academics' job satisfaction and enhance the quality of higher education. The researcher would like to propose the following.

Principals need to consider job satisfaction as a key factor of the quality of education. Academics' perceptions of their occupation are relevant and significant to their feelings of job satisfaction, which in turn affect their teaching quality and their intention to remain in the teaching profession. It is often assumed that 'happier teachers are better teachers' (Hean and Garrett, 2001), thus a high level of academic job satisfaction would lead to high quality of education.

Secondly, pay is considered as one area which is not well established and there is a perceived lack of fairness, which raise concerns relating to a reasonable pay system. On the basis of the findings in this study, pay was the least satisfactory factor of academics' job satisfaction and none of the demographic variables significantly affected the level of satisfaction with pay in the questionnaire analysis. This result implies that most academics were dissatisfied with pay, and to some extent this had a negative effect on their job motivation. In recent years, although academics' pay has improved a lot, there are still some improper aspects: the level of pay does not appear to correlate with the high social status, the high qualifications, the large amount of work and the great achievement involved. Academics also compared their pay with people working in other universities or in other professions, and a great pay gap was reported between north and south universities and university and other industries. Therefore, higher education institutions need to consider the adoption of a reasonable pay structure, such as introducing pay for performance system, pay for workload system and pay for achievement system. In addition, to increase academics' job satisfaction, pay has to be fair in universities compared with other organisations and the pay system has to take the cost of living into consideration.

Thirdly, principals need to consider the adoption of a more diversified and fair promotion system. It has been revealed that Chinese academics had a low level of satisfaction with both promotion system and promotion fairness. To some extent, the findings are understandable as the opportunities and number of promotion posts are limited and the

promoted academics may speak highly about this system. In this system, the promotion post is permanent and the academics once promoted will normally stay in the post until they change their job or retire. The promotion brings them not only high status but also a pay increase. This implies an ineffectiveness and unfairness in the current promotion system which would demotivate academics who have no chance to be promoted. Therefore, principals need to be aware of the defects and consider setting up a more effective promotion system, such as creating more promotion posts for academics based on performance, introducing diversified forms of payment, bonus, flexible rewards, and non-monetary welfare. In addition, the fairness of promotion system would increase academics' job satisfaction. It is suggested to create a comprehensive promotion scale, including teaching ability and quality, research achievement, administration ability, personal relationships, other experiences and length of service. At the same time, this scale should be accepted by all academics and be equal to everyone, as it may bring positive effects of academics' job satisfaction with the promotion factor.

Furthermore, it is suggested to create a positive and cooperative organisational culture which would increase academics' job satisfaction. It could be argued that a school culture has a very powerful influence on academic life and on the success in academic, social and personal terms which academics achieve. It is noted from this study that most of academics deemed that the collaborative atmosphere was very important, but not all of them were satisfied with the team work. This result raised the implication for principals to build up effective working teams and a positive organisational culture. This could be

achieved by organizing team research projects, teaching groups, off work hour activities, to provide opportunities for working and learning. High team spirit could help to improve work and personal relationships among academics, facilitate task fulfillment and create job motivation and enthusiasm.

In addition, principals need to be aware that humanistic management has effects on academics' job satisfaction. Some academics commented that the imposition of regulations and rules sent from the senior management team constrained the ability and creativity of academics. They were dissatisfied with some policies because they are inappropriate or badly planned and executed. This indicated that academics had no voice in the 'bureaucracy' of the education system, which caused great job dissatisfaction and job demotivation. Academics are highly educated and qualified people, who pursue self-actualisation and deserve to be treated fairly and with respect. Therefore, it is suggested to involve academics in planning and executing policies. Principals need to employ effective ways to communicate with academics and to devise regulations and rules with input from them to facilitate academics' job motivation and improve educational quality.

Finally, the findings from this study have strong implications for principals to adjust work related stress. It is noted that all academics feel their work is stressful. Positive stress can inspire academics' motivation and enthusiasm to work and enhance work effectiveness; however, most of the academics reported negative feelings of work stress which eroded

their health to some extent. This is somehow unavoidable as the new changes in the Chinese higher education system may bring increased stress for academics. Large class size, long working hours, curriculum reform, changes in pedagogy, contract based employment system, marketization of higher education and limited research funds have resulted in feelings of great pressure upon academics. However, it is suggested that principals need to consider relieving academics' work stress through educational reform, for instance recruiting more academics for the expanded student numbers, providing more opportunities for teacher training and professional development, providing more funds for high quality research projects and helping academics to balance the time to teach and research.

5.4 Limitations of the study

This study is a contribution to the field of human resource management in education. It is designed to acquire a greater understanding of university academics' attitudes to their work and to highlight the major factors that contribute to their job satisfaction in China. Since in the present literature, there are only a handful of publications on this topic relating to the Chinese context, there may be other factors that have not been considered in this study. Although the findings from this study do accurately reflect respondents' attitudes to their job, there may be limitations due to the limited data and time constraints of this research. The limitations of this study can be summarized as follows.

Firstly, the overall academics' job satisfaction may vary from time to time depending on

the level of job satisfaction with the variables associated with it, such as economic development, education policy, job content, job related stress. This study only measured academics' job satisfaction at one point of time, so it is suggested that a longitudinal study is needed to compare the findings in varied time periods to find out the patterns of academics' job satisfaction.

It is also important to note that job satisfaction may vary by region. The evidence has shown that pay varied by region which was a source of job dissatisfaction to academics. Regional difference is based on economic and cultural difference. In China, a great economic gap exists between east and west regions. With the economic development in recent years, academics in the east coastal region have experienced more flexible and open-up policies (Kang, 2004) than academics in west area, which may affect their job satisfaction. Therefore, research studies on job satisfaction in various regions and various cultural settings are necessary.

With regard to the sampling technique, although many of the findings in this study have been consistent with previous research, it is important to be cautious in interpreting the results because the findings are limited to the sample from state universities in one city in China. Thus, this study may not be generalized beyond this particular context. In addition, the convenience and snowball sampling technique used in this study may or may not represent the whole population well. It is suggested to use random sampling technique in the circumstances where it is possible and practical to acquire the data.

The job satisfaction questionnaire was not comprehensive in this study. Most interview respondents reported their dissatisfaction with bureaucracy in school, so it is suggested to include more regulation related factors, such as leadership styles, school rules and regulations, and management and administration. It would also be better to research arts and science academics separately because of the differences in their working styles.

Furthermore, it is difficult to do research in a developing country. Although the Chinese government has paid more attention to teachers and education in recent years, higher education institutions are still in the process of educational reform and development. The researcher has to face obstacles when doing research, such as the lack of consciousness of the importance of research and the shortage of data bases including the lack of contacts with university academics and electronic journals. The original idea of the researcher was to use random sampling technique; however, there is no accessible sampling frame for the researched population which forced the researcher to utilize snowball sampling technique.

5.5 Recommendations for future research

While this study addresses various issues regarding factors contributing to academics' job satisfaction in China, much remains to be investigated to contribute to the scholarly research in the fields of educational management. This is particularly the case because systematic research on academic job satisfaction is lacking in the Chinese context. Based on the findings, discussion, and conclusions of this study, the following areas of research are recommended for future study.

- A suggestion which may improve the applicability of the findings as well as the reliability of the instruments of the present research, is to increase the sample size and to include other aspects of job satisfaction, such as school management and administration, leadership styles, school environment and facilitates, recognition.
- It is recommended that longitudinal case studies of academics' job satisfaction are conducted which could be more useful and informative for principals to develop their strategy across the contexts and over time.
- Replicated studies on academics' job satisfaction could be developed and modified to fit into other higher education settings in developing countries.
- This study only identified factors that affect academics' job satisfaction. Further investigation is needed so as to isolate specific items and significant differences in academics' satisfaction ratings.
- The findings of the current study show that academics had a low level of satisfaction with pay and promotion. Further research is needed to study each factor individually and to add more deep and concrete information to the current findings.
- It is recommended that future study could be conducted to explore the variables associated with job satisfaction, not only measuring the job satisfaction, such as organisational commitment, motivation needs and staff turnover intention.
- It is suggested that future cross cultural studies could be conducted on the comparison of Western and non-Western cultures. It could expand the job satisfaction theories and compare different findings in various cultures.
- A comparison of state and private university academics' job satisfaction is

recommended to help principals make more effective policies to improve educational quality.

5.6 Conclusion

This research represented a systematic study offering a new look at academics' job satisfaction within Chinese university settings in light of higher education changes and the Chinese culture. Massive changes led to rising expressions of concerns of job satisfaction of university academics and the quality of higher education. Cultural factors, such as power-concentrated, group-oriented, holistic relationships, have significant influences on Chinese academics' perceptions of their work. In establishing job related factors deemed important in impacting on academics' response to their job, it investigated the job satisfaction and dissatisfaction factors.

The findings have revealed that academics' job satisfaction has strong relationships with their perceptions to a number of factors. Although there are no significant differences with respect to personal characteristics relating to overall job satisfaction, age had significant influence on job satisfaction with self-esteem and self-efficacy. With regard to work related factors, academics had a high degree of control over intrinsic factors and had a limited control over extrinsic factors. This indicated that intrinsic factors tended to be dominant in Chinese university settings and were deemed more important than extrinsic factors to motivate academics in the work. Although academics held negative attitudes towards low pay and limited promotion prospects, job related negative effects were not

obvious. This thesis could be concluded that Chinese university academics were generally satisfied with the overall level of job satisfaction, though not with pay and promotion. As cultural effects are particularly relevant to China, not all Western models of job satisfaction can be applied to the Chinese context.

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Appendix 1 – Interview Questions

Interview Schedule 谈话程序

This interview schedule is designed to collect information on university academics' job satisfaction. It is aimed at acquiring a greater understanding of the university academics' attitudes to their work, exploring the factors impacting on their job satisfaction and identifying the potential consequences of positive or negative job satisfaction in the Chinese context.

此谈话程序是为了收集大学教师对工作满意度的信息而设计的。目的是为了对中国大学老师工作态度有更深入的了解，找出影响工作满意度的因素和确认积极和消极的工作满意度的潜在后果。

Individual data in this research will not be disclosed (names and identifying features will be changed where necessary). All interviews will be treated confidentially, only used for the research and accessed only by the interviewer.

该研究的个案数据将保密（名字和特征会做必要的改动）。所有谈话的信息都将保密，仅供科研使用。

Interviewee's personal profile 谈话者个人资料

Before getting to the specific aspects of this interview, could I ask you some general background questions first?

在谈话具体内容进行之前，首先请回答一些背景问题。

1. Name: 名字 _____ Age: 年龄 _____ Gender: 性别 M男 ____ F女 ____.

2. How long have you been in the teaching profession? _____.

您从事教育事业多久了？

3. What higher education qualifications do you hold?

您的最高学历是什么？

☐ Bachelor 学士 ☐ Master 硕士 ☐ PhD 博士 Other其他 _____.

4. What is your present post? 您现在的职位？

☐ Assistant teacher 助教 ☐ Lecturer 讲师 ☐ Senior lecturer 高级讲师 ☐

Reader 副教授 [] Professor 教授 Other其他_____.

5. Department部门 _____.

Subject are主要研究领域 _____.

Questions: 问题

1. Why did you decide to become a university academic?
您为什么决定当大学老师?

- Is the job and the work involves what you expected?
您现在的工作是您所期望的么?

- Is there flexibility and autonomy in your work? How do you feel about this?
在您工作中有灵活性和自主性么? 能详细说明么?

- Do you feel that your work supports a sense of self-esteem?
您觉得您的工作能带给你一种自豪感么?

- Do you feel the work you do is appreciated in society?
您觉得您的工作受到社会赏识么?

- Do you always feel able to do this work?
您觉得您能胜任这份工作么?

2. Are you satisfied with the responsibility and challenge offered in your work in the university? Why?

您对工作中的责任和挑战满意么? 为什么?

- What do you think of the variety of work that you do?
您认为工作的多样性如何?

- Do you feel that you have the opportunity to use all your skills in your work?
您觉得在工作中有机会发挥您的技能么?

- Do you think the work you do gives you a sense of personal accomplishment?
Why?

您认为现在的工作能给您一种自我成就感么?

- Do you feel that there are suitable opportunities for professional and career development?

您认为在工作中有适合您的专业发展机会么?

3. How important are your relationships with your work colleagues?

您认为工作中与同事的关系重要么?

- Are you satisfied in your work with colleagues?
目前与同事的关系您满意么?

- Do you feel that there is a team spirit among your colleagues? Is this important to you?

您认为在同事中有团队精神么? 对您来说重要么?

- Do you usually get support from your colleagues? Could you give an example?
(How supportive are your colleagues?)

您经常得到同事的支持么? 可以举个例子说明么?

4. How satisfied are you with the pay you receive in relation to the type and amount of work that you do?

相对您的工作量和类型来说，您对您的收入满意么？

- What do you think of the pay you receive in relation to the cost of living in the city you live?

相对于您居住城市的消费来说，您认为您的收入如何？

- Compared with others in your university or others' holding a similar position in other universities, do you think your pay is fair?

跟相同大学和其他大学相同职位的老师相比，您认为您的收入公平么？

- Compared with others with similar qualifications to your own who work outside the university sector, do you think your pay is fair?

跟相同学历做其他工作的人相比，您认为您的收入公平么？

- How much do you expect to earn?

您期待的收入是多少？

- Do you think your pay is related to your performance? Or to something else?

您认为您的收入与工作表现有关么？或者与其他因素有关？

5. What do you think of the promotion system in your university?

您认为您们大学的人员晋升体系怎样？

- Is it fair?

公平么？

- How do you see the chance for promotion in the future? (Do you feel that you have a good chance of promotion in the future?)

您怎么看待未来的晋升机会？

6. What is your view of the teaching and research in your university?

您是怎样看待您们大学的教学与科研的？

- What do you think of the amount of the work you do?

您认为您的工作量怎么样？

- Do you feel stressed in your job? Are colleagues stressed?

在您工作中您感觉有压力么？您的同事呢？

- Do you feel that stress is an influential factor impacting on people working in your university?

您认为压力是影响您在大学工作的重要因素么？

- Have you ever considered quitting your job (if there are some alternative employments to go to or early retirement) due to stress?

您曾经考虑过因为工作的压力辞职么？

- Do you think job stress influences physical and psychological health? In what way?

您认为工作压力影响身体和心理健康么？哪几方面？

What are the main satisfiers in your job?

您认为在工作中最满意的因素是什么？

What are the main dissatisfiers in your job?

您认为在工作中最不满意的因素是什么？

On the whole, are you satisfied with your job?

总体来说，您对工作满意么？

Appendix 2 – Interview Transcript and Translation

1. Name: 名字 Liu Jinke 刘金科 Age: 年龄 44 Gender: 性别 **M**男___F女___.

2. How long have you been in the teaching profession? 19.

您从事教育事业多久了？

3. What higher education qualifications do you hold?

您的最高学历是什么？

☐ Bachelor 学士 ☒ **Master** 硕士 ☐ PhD 博士 Other其他 _____.

4. What is your present post? 您现在的职位？

☐ Assistant teacher助教 ☐ Lecturer讲师 ☐ Senior lecturer 高级讲师

☐ **Associate Professor (Reader)** 副教授 ☐ Professor 教授

Other其他_____.

5. Department部门 法学院 School of Law_____.

Subject are主要研究领域 国际经济法 国际私法 International Economic Law,
International Private Law .

I: 老师你是大学毕业的时候就当大学老师了么？

I: Why did you decide to become a university teacher?

T9: 因为当时我爱人在辽师读书，不想两地分居，所以我就放弃了去北京的机会，来大连工作了。

T9: At that time my wife was studying in LiaoNing Normal University, and we did not want to be separated, I gave up the opportunity to work in BeiJing and came to DaLian.

I: 你当时就这么决定当大学老师了？

I: When you came to DaLian, why did you decide to be a teacher?

T9: 说实话，当时到东财来事实上是一个过渡。从我个人性格上来看，我自己认为不太适合当大学老师。在我读书的时候，我还是比较热中于在社会的实践中，比如说做律师，去公检法或者政府机关等等吧。反正我没打算做老师。但是当时到东财来，因为我不是大连人，所以要解决住房，生活等实际问题，如果出去做，考虑到风险挺大，做老师工作稳定，所以就留下来了。

T9: To be frank, it is only a job transition for me to be a teacher. From my personal character aspect, I do not think I am suitable to be a teacher. When I was studying in university, I was active in social activities. I would like to work as a law officer or work in the government. At that time, I have to resolve the housing and living problems; it would be in great risk to work outside university, so I chose this stable job and stayed as a university teacher.

I: 后来你的工作是你当初所期望的么？

I: Is the job and the work involves what you expected?

T9: 还是有一些差别吧。我个人认为老师还是应该独当一面的。在学校做教师来看吧，在某一个层面上，还是能满足自己的需要的，比如说在授课和带学生当中，还是能把自己的想法说出来的。但是当老师也有很多的束缚，想想可能在社会上干什么行业都有束缚，可能是中国的国情决定的吧。

T9: There are some differences. Being a university teacher, from some aspects, I can do what I expected and work in my own way, such as teaching and communicating with students; I can speak out my own ideas. There are some restrictions for teachers, while it is the same situation in every industry.

I: 在工作中的灵活性和自主性，你认为如何呢？

I: Is there flexibility and autonomy in your work? How do you feel about this?

T9: 应该说灵活性和自主性挺强的。从学术研究方面来说，比过去民主多了。但是法学这个专业的政治性很强，所以有些地方还是要考虑一些其他的東西。象我上课的时候，对中国的经济，政治都有一些自己的看法，但是自己的看法能讲不能讲，讲到什么程度都要有一个分寸，所以也不能完全的自由。

T9: I can say that there is enough flexibility and autonomy. From the perspective of research, it is more democratic than before. However, the subject of law is tightly related to the politics, I have to consider some sensitive factors. In my lectures, I have my own ideas about economics and politics, but there's a proper limit for these topics and I can't speak out freely.

I: 你觉得这份工作能带给你一种自豪感么？你觉得大学老师在社会上地位怎么样？

I: Do you feel that your work supports a sense of self-esteem and the work you do is appreciated in society?

T9: 在近些年还可以。现在重师重教这块在咱们国家也实行了，现在好的多了。但自豪不自豪这个问题主要看自己的水平，能力以及别人的认同。我觉得做老师是个良心活，从内心的爱护学生，学生也会尊重你的。我自认为在社会中人们对我的评价还是挺高的。从自豪的角度来看，还是能体现出来的。但是自己觉得成就还不够，有的时候年轻人能力都很强，也没什么自豪的。

T9: I feel good in recent years. Nowadays, our country has paid more attention to teachers and education. Whether there is a sense of self-esteem or not depends on one's own ability and other people's view. You love your students from the bottom of your heart, as a trade back your students will respect you in return. I think I am recognized in the society and I can feel a sense of self-esteem, but I do not think I have too much achievement. Nowadays young teachers are very capable, I feel I need to work hard.

I: 因为现在知识更新比较快，年轻人接受新知识的能力比较强。

I: The knowledge updates very quickly, and young teachers have great ability to renew their knowledge.

T9: 这里面也有个地域差别吧，经济发达地区机会比较多。北京，上海比较多，大连这个地方吧，相对来说还是比较闭塞。

T9: There are regional differences. More chances are available in economic developed region, such as BeiJing and ShangHai. Comparatively, DaLian is a relative closed city.

I: 老师你对工作中的责任和挑战满意么？

I: Are you satisfied with the responsibility and challenge offered in your work in the

university?

T9: 这个我认为还可以。现在从学校的机制来看吧，给每一个老师足够的空间。要想承担这样一份责任或者面对这样一份挑战，需要自己有足够的的能力。老师要对学生有这样一个责任，要面对他的求职或者今后的需求啊。在这种情况下，就要不断的完善自己。学法律专业本身就要这样，要有一种活到老学到老的意识。

T9: I think it is ok. From the perspective of the authority system, every teacher has room to bear some kinds of responsibilities. I need to acquire sufficient capability to face these challenges and responsibilities. A teacher is responsible for his students' occupational career and development. Constant updating the knowledge is a main feature of the major of law.

I: 是啊，法律这个学科更新的很快的。那你认为工作的多样性怎么样呢？

I: Yes, the subject of law updates so quick. What do you think of the variety of work that you do?

T9: 现在从教师的多样性来看，我主张要适应社会发展。知识不应该局限于一个领域或者一个课程上。象我教的国际经济法本身，它含盖的内容就很大。那么就是说你能够具备一定的能力，比如说把其中的某个部分单独作为一门课开的时候，你可以应对学生的不同需要，可以调整讲课的内容。从多样性角度来看，高校的教师应该具备教学和科研的能力，因为教学和科研是相互促进。现在在学校很多人还理解为行政和教学的结合，我觉得这方面好象不应该是一个发展的趋势。

T9: In the point of the variety of teachers' work, I propose that it should comply with the development of the society. Knowledge should not be confined to one area or one subject. For instance, for the subject of international economic law, it covers extensive content. When you teach one part of it as a module, you have to adjust your content to meet the demands of the students. From the variety aspect, teachers in higher education should have the ability to teach and research, because they facilitate each other. Nowadays, many teachers think the variety should be the combination of the teaching and administration, but I do not think it should be the trend of development.

I: 老师你认为现在的工作给你一种成就感么？

I: Do you think the work you do gives you a sense of personal accomplishment?

T9: 有。做老师最大的成就感就是来自学生。

T9: Yes, I think so. The strongest sense of personal accomplishment is from students.

I: 对啊。来自学生。

I: Yes, from students.

T9: 学生毕业了，找到好工作了，就觉得自己特有成就感。

T9: When students graduated and found good jobs, I always raise a great sense of personal accomplishment.

I: 你认为在工作中有适合你的专业发展机会么？

I: Do you feel that there are suitable opportunities for professional and career development?

T9: 还是有的。从咱们法学院来看，国际经济法这块，从教学部来说吧，都是年轻的老师，现在有点断档，副教授以上的现在就我自己。特定的环境下，就给了我很大的发展的机会。我从来咱们学校到现在，从我自己开的课程来看，我就开过 8 门课。很多课都是我开完以后，带着年轻的教师再讲的。新开一门课对老师来说就是一种挑战，我自己来看呢，我自认为还是能胜任的。

T9: Yes, there are some opportunities. In law school, the team of International Economic Law is short of experienced teachers, most of whom are young. In this particular condition, I have many opportunities for professional development, such as attending research conference and exchange program, etc. Since I came to this school, I have taught 8 modules. Teaching a new module is a great challenge to teacher. From my point of view, I am capable to do this work.

I: 恩。

I: En.

I: 你认为工作中与同事的关系重要么？

I: How important are your relationships with your work colleagues?

T9: 很重要。有很多人认为在高校中，老师都是个体户，但我认为现在不是，现在应该注重发挥团队精神。和同事的关系，如果协调的话，才能干好工作。我们本身是一个学院，一个小团体，如果开会，同事关系磕磕碰碰的，那心情也就不好了。团体应该有个凝聚力。高校的教师，现在有个传帮带的问题，基地建设是很重要的。学术的发展，课程的发展，基地建设是很重要的。在这样一个过程当中，如果没有团队精神是不行的。团队精神就是同事关系，很重要的，老同志有老同志的优势，年轻人有年轻人的优势。而且现在来看，同事之间在合作的基础上能体现出竞争。另外有一个科研问题，一个项目一个人做不了，必须发挥团队精神，甚至要把团队扩大到别的学院，构建更大的团队。所以说同事之间的关系很重要。

T9: It's very important. People outside university commonly hold the idea that teachers work independently, but I see it another way, it is vital to work as a team. Good relationship and harmonious atmosphere can foster teachers' work; otherwise bad mood can influence the work. As a group, we have the cohesion. In the process of research, curriculum development and basement construction, team spirit is critical. In a team, both old and young teachers have their respective advantages; good relationship is an essential condition to work well. In addition, teachers can cooperate and compete with each other. Furthermore, one teacher can not perform the project individually. If necessary, a team can be extended to other schools. Therefore, this kind of relationship called 'team spirit' is very important.

I: 那你觉得你跟同事的关系你满意么？

I: Are you satisfied in your work with colleagues?

T9: 我还可以，呵呵。

T9: I am satisfied, hehe.

I: 经常得到他们的支持么？

I: Do you usually get support from your colleagues?

T9: 应该是。你比如说我们国际经济法教学部，我算年龄最大的，很多的工作都需要下面去做的。虽然说很多情况下是我带头，但基础和辅助的工作还是由他们来做的。大家在一起也没有什么斤斤计较的，还是很和睦的。现在我们几个同事还在一起成立了一个运动俱乐部，我们定期活动，经常去打羽毛球，爬爬山。高校的老师总体来说运动量太小了，经常有目的性的搞些这样的活动，一方面是锻炼锻炼身体，另一方面也是增进一些感情。

T9: Yes. In department of the International Economic Law, I am the oldest teacher. As a leader, I assigned the work to the youth and supervised their performance. All the works

are carried on smoothly. We get along well with each other both in work and in daily life. We organize a sports club and usually play badminton and climb the mountain together. Besides the work, teachers need some sports activities. This kind of activity not only makes us healthy, but also builds up a good relationship among us.

I: 是，是。

I: En, en.

T9: 大家做的都很好的。

T9: All teachers get along well with each other.

I: 相对你的工作量和类型来说，你对你的收入满意么？

I: How satisfied are you with the pay you receive in relation to the type and amount of work that you do?

T9: 不满意。咱们国家整体来说政策不公平。

T9: I am not satisfied. The educational policy is unfair in China.

I: 收入的差距特别大。

I: Do you mean the income differences?

T9: 南北就不用说了。就是在北方地区来说，也有很大差距。就是局限在大连来说也有很大差距。现在高校老师的收入主要是来自 3 大块：一大块是国家给的基本工资，每个高校，每个老师都差不多；第二大块就是学校给的。象东财 70% 是国家给的，30% 由学校来出。这部分就是各个高校自己的实力问题了；还有一大块就是教学的报酬，比如说讲课的课时费啊，这也是来自学校的。现在来说各个学校的差距很大，比如说“211 工程”的学校，国家拨的钱要多一些，这一部分钱主要用于教学，用于福利等等。东财在前十年，还是挺响当当的，因为当时隶属财政部的，东财很有钱的。现在隶属省里了，省里对东财不太“感冒”。这里面一方面是从钱上来说，再就是从机会上说，现在东财达到了历史的一个最低点。在大连地区的高校来说，我们的收入不是高的，就处于中下等水平，但是我们现在的工作量和付出是很大的。

T9: Evident differences exist between south and north regions. In the north of China, there is also great difference. Even in DaLian, there is difference. The income of university teacher consists three parts: one is the basic salary from the country; it is more or less the same in different universities. Another part is from the university, in our school, 70% of the income is from the country, the left 30% is from our university. This part depends on the strength of the university itself. The left part is the teaching reward from school, such as the pay of teaching hours. There is great gap among universities, e.g. “211 projects” universities will get more fund from the country. The extra part is distributed to teaching and welfare etc. In the previous decade, our school was powerful, because at that time we were in the charge of the Ministry of Finance. Now we are in the charge of Province, either the fund or the opportunity is less than before. Among the universities in DaLian, our income is not very high, only in the lower middle level, but the amount of work and the stress are very fairly large.

I: 那对于咱大连的消费来说，你认为收入如何？

I: What do you think of the pay you receive in relation to the cost of living in DaLian?

T9: 中等水平吧。

T9: In a middle level.

I: 恩。

I: En.

T9: 现在只能这样。在收入不可能有明显改观的时候，就要学会去适应吧。谁都希望住大房，开好车，有好日子过，但是也要看收入多少，不能超支吧，呵呵。现在希望赚的多点，30万，50万，这在南方一些高校里面不是一种幻想。但是在辽宁，东财，老师如果没有外部收入的话，那就是一种幻想。

T9: Since the expectation of a higher salary is impossible, we simply need to take it. Everyone hopes to live in a big house, drive a luxury car and have a decent living, but it relies on the income, hehe. Universities in southern region, for their teachers to have an annual income of 300 to 500 thousands are not a dream, but in LiaoNing province, it is a big illusion for teachers here without extra earnings to live a life like that. .

I: 跟相同大学和其他大学相同职位的老师相比，你认为你的收入公平么？

I: Compared with others in your university or others' holding a similar position in other universities, do you think your pay is fair?

T9: 象我刚才说的就是这样。东财算是中等水平吧。

T9: Just as what I said before, it's in the middle level.

I: 但是跟专业也有关系吧？

I: Do you think it is related to the subject?

T9: 咱们就讲同专业的。那辽大法学院来说，辽大法学院的老师应该说是最富的。

T9: I just mean the same subject area. In the Law School of LiaoNing University, teachers are the richest.

I: 是么，为什么啊？

I: Really, why?

T9: 很多院校法学院的老师都应该是很富的。在外面做律师拉，有各种收入吧。从专业上来看，我们就比别人差多了。

T9: In many universities, teachers in Law school should be the rich, because they also work as lawyers. We earn less than them just in consideration of the major.

I: 老师你们不在外面做项目么？

I: Do you work on some projects outside university?

T9: 也做啊。但大连的外部环境，律师多少啊，整个的司法环境不同。另外就是每个人的不同，我们系也有老师把大部分精力都投到外面。我在外面也做律师，也做仲裁员，但学校的事情很多，我还在读博，所以就没有多少时间在外面干了。

T9: I do some, but the law environment in DaLian is not very good. In addition, it also varies with people. There are teachers in our school who put most of their energy to out university work, so they can earn more. I also work outside the university as a lawyer and an arbitrator, but I have a lot of school work and I am studying my PhD degree, thus I do not have too much time to work outside.

I: 你期待的收入是多少？

I: How much do you expect to earn?

T9: 减小地区差异，全国水平平衡一下就行了。

T9: It's better to reduce the difference between south and north.

I: 老师你认为咱大学的人员晋升体系怎么样呢？公平么？

I: What do you think of the promotion system in this university? Is it fair?

T9: 大学的晋升就是一个评职称吧。职称这块吧，大家也不是太满意。既然有竞争这样一个过程的话，应该有一个标准，这样大家就都没有怨言了。这里还存在一个标准的设计的问题。现在一般来讲都是拿科研来衡量，但是中国目前的状况就导致大家都去写论文，发表论文，但是这个东西到底有多大质量。我个人认为有的大学老师真的能写，象我刚才说的科研和教学应该是相辅相成，但也有的老师一辈子就教学，恐怕对他来讲要求他有科研很困难，比如说教外语的或者数学的，怎么写科研，有些专业就很难衡量。所以说有很多专业限制，比如说外语，有些能写东西的，但相对理科，比如说搞经济的，肯定不一样。所以单一的拿科研来衡量，有一定的片面性，会带来一定的负面影响。

T9: We are not satisfied with the promotion system. We all think that there should be a standard in the competition process. Generally speaking, it is scaled by the research achievement, so most of teachers are devoted to writing and publishing paper, but the quality of the paper should be doubted. In my opinion, the research and teaching should make supplement for each other. Some teachers teach for a life time, so the research is hard for them. For instance, for the major of Foreign Languages and Mathematics, it's difficult to evaluate their research achievement, while sciences and economics are different. Therefore, it is so simplistic to scale it with the research achievement, and it will cause the negative consequence.

I: 是啊，其实教学和科研之间很难衡量的。

I: Yes, in fact it's difficult to scale the teaching and research.

T9: 学校这两年也在调整，在晋升当中有教学的，也有科研的。我觉得这样也挺好的。但刚开始，这个标准也很难把握，是以上课的多少为标准呢，还是以讲课的效果为标准呢。所以我觉得要衡量一个老师来讲，要不要拿量来衡量；但是拿质来衡量代表着什么。在中国大学里人员晋升这块来说，一直是个老大难的问题。

T9: In recent year, our university has adjusted this system. The promoted teachers include both professional in teaching and research. I think it is very good. However, for teaching aspect, it is hard to set the standard, whether assessed by teaching workload or teaching effectiveness. There is still a question for evaluating by the quantity or the quality of teaching. The promotion system in university is a big problem at all times.

I: 老师，你是怎么看待未来的升职机会的？

I: How do you see the chance for promotion in the future?

T9: 我对这个问题看的很淡。能升当然是最好的了，我还想做博导呢，但是这个东西在现有的机制下也不要刻意去追求，更不要为了达到这个目的而怎么样。

T9: I do not pay much attention to promotion. It's better to be promoted, but I do not pursue it purposely in this kind of educational system.

I: 那你认为机会多么？

I: Do you feel that you have a good chance of promotion?

T9: 我倒不是很看重。

T9: I haven't thought a lot of it.

I: 你是怎样看到教学与科研的工作量的呢？你认为现在的工作量大么？

I: What is your view of the teaching and research workload in your university? What do you think of the amount of the work you do?

T9: 从学校恒定这个工作量来看，我觉得还行。但是咱学校现在是个倒金字塔型。

助教，讲师教学量很大，副教授，教授教学量很小，是从这样一个角度看的。

T9: In respect of the amount of work, I think it is ok. The teaching assistants and lecturers have large amount of teaching work, but associate professors and professors have less.

I: 那科研工作量呢？

I: How about the research workload?

T9: 科研工作量从打分上副教授和教授要大一些。但科研工作量很容易就满足了，而助教和讲师要完成教学工作量，要占用他们很多时间的。讲师一学年 180 个课时，这就意味着每学期至少要上 2 到 3 门课。

T9: Associate professors and professors have more research work, which is easy to meet the requirements, while teaching assistants and lecturers need to spend a large amount of time in teaching. They have 180 teaching hours per year; which means that they need to teach two or three modules per semester.

I: 对教授有要求么？

I: Is there any demand for professor?

T9: 也有。但是少。比如说副教授 160（个学时），教授 120（个学时）。相对应的科研工作量这块呢，讲师 100 分，副教授 150 分，教授 200 分。50 分的差距对于一篇论文来讲多写 2000 字就够了。

T9: Yes, but not much. E.g. An associate professor has 160 teaching hours per year, and professor 120. From the research aspect, lecturer needs to get 100 points, associate professor 150 and professor 200. 50 points can be easily gained by a 2000 words paper.

I: 对啊。

I: Yes.

T9: 从工作量的设计来看呢，总体工作量不是很大，但是又有这样一个问题。对年轻人来讲，要给他们一个机会，这个机会呢，上课是锻炼人，科研也是锻炼人。

T9: Generally speaking, the amount of work is not too much, but I think it is necessary to give young teachers an opportunity not only in teaching but also in research.

I: 给你分配的工作量与你现在的岗位合适么？

I: Do you feel that the tasks you are asked to do as part of your job are appropriate?

T9: 不大合适。就象我刚才说的，有很多的课不太合适，我是不愿意上的，比如说给成教的学生上课。他们的基础很差，其实用个助教上课就够了。但是考虑到学院的安排，这个工作没有人去上，我还得去上。这种情况现在还是避免不了的，额外还要承担很多责任。

T9: it's not appropriate. Just like what I have said, I do not like to teach some of the modules. For example, I teach students in the Adult Learning department. The students do not have the basic knowledge, so I think a teaching assistant is enough, but considering the arrangement of the school, I have to take this kind of responsibility.

I: 老师你在工作中感觉到有压力么？

I: Do you feel stressed in your job?

T9: 压力挺大的。现在做老师不容易了，方方面面考核，约束。现在整个教学的观念改了，我认为这个挺对的。教育就是一种服务，教师作为服务的提供者，学生作为服务的接受者，所以学生对老师有权力提出更高的要求，教师有义务去满足接受者的要求，我觉得这是很对的。正因为这个对，所以作为服务的提供者能够建立这种合同关系，能够站住课堂，就要提高自己的能力，所以每次上课都要认真对待。

T9: Yes, too much pressure in the work. Nowadays it's really difficult to be a teacher due

to different kinds of assessment and restriction. In recent years, the educational concept has changed. Education is a kind of service, teachers are the supplier and students are the receiver, so students ask for high quality of teaching and teachers need to satisfy their needs. Under such circumstance, teachers have to adopt a serious attitude about teaching and improve themselves continuously.

I: 是啊，现在当老师挺难的。

I: Yes, it's so difficult.

T9: 事实上这种压力哪都有，不管是在政府机关，还是在企业里都有压力。但是这种压力怎么能克服，就是自己的能力决定的了。做老师能力强，这些都不在话下。有没有压力？有，但是这种压力不足以让你退缩。我认为如果不具备这种能力的时候，恐怕这种压力就会压制你了。所以说我觉得有这种压力还是对的。

T9: In fact, there is such kind of stress in every work. It is the same with the work in the government as well as in enterprises. It depends on your ability to overcome the stress. If you are a capable teacher, it's quite easy. Are there any stress? Yes, of course, but it can not influence you work. If you are short of this kind of ability, the stress will be an impediment in your work. Therefore, I think this kind of stress is necessary.

I: 老师你觉得这种压力是影响你在大学工作的重要因素么？你曾经想过要辞职或者是早点退休么？

I: Do you feel that stress is an influential factor impacting on people working in your university? Have you ever considered quitting your job if there are some alternative employments to go to or early retirement due to stress?

T9: 早点退休我倒是想过，不过我想早点退休不是因为有什么压力。谁都想早点退休，因为退休以后一方面学校这面有固定的收入，同时我们还可以一心一意的在外面做事。如果能退休，我明年就想退休，呵呵。

T9: I have considered retiring in an early age, but it is not because of stress. Every teacher wants to retire early, because they can put their full energy on working outside the university and earn extra money. If I can, I wish I can retire next year, hehe.

I: 呵呵。你认为这种压力影响身体和心理健康么？

I: Do you think job stress influences physical and psychological health?

T9: 累肯定是累，有压力就累啊。不过我觉得影响健康还要具体问题具体分析。我到没觉得因为压力影响健康，这个还在于自己的调节。是不是？

T9: It's very tired due to the stress, but for this question, I do not think so. In my opinion, self-adjustment is a very useful way to relax, isn't it?

I: 是啊。那老师总体来说，你认为在工作中最满意的因素是什么？

I: Yes. All in all, what are the main satisfiers in your job?

T9: 就是这样一个比较宽松的环境。

T9: I like the free working environment.

I: 还是这个灵活性和自主性吧。

I: Do you mean the flexibility and autonomy?

T9: 对。一是可以不断的完善自己，同时现有的这种机制可以把你的能力完全的展示在学生面前。特别是现在指导，带研究生以后，自己去制造产品，将来学生成功了就是最大的成就。

T9: Yes. In this environment, I can improve myself and exert all my ability to the class.

Especially I can have a sense of accomplishment when the postgraduate students I supervised graduate.

I: 特有成就感。

I: Very proud of them.

T9: 我觉得高校现在这个机制还是很值得人留恋的。

T9: I think the system in university is the most important reason for me to stay.

I: 那你最不满意的因素呢？

I: What are the main dissatisfiers in your job?

T9: 最不满意的因素就是现在教育机制的不均衡。人均占有教育资源的不均衡，包括收入啊，待遇的不均衡。

T9: The main dissatisfiers are the imbalance of the educational system and the imbalance of the educational resources, including the income and reward, etc.

I: 总体来说你对工作满意么？

I: On the whole, are you satisfied with your job?

T9: 还行吧。

T9: It's ok.

I: 如果最高分是 5 分，你打几分呢？

I: If the highest point is 5, how much will you give to this job?

T9: 4 分吧。

T9: 4.

Appendix 3 - The Questionnaire

Job Satisfaction of University Academics in China

中国大学老师对工作满意程度调查

SECTION I: 第一部分

Personal Characteristics 个人情况

Please tick the appropriate box.
请选择合适选项

1. Gender 性别

[] Male 男 [] Female 女

2. Age 年龄

[] 25-30 years 25-30 岁 [] 31-35 years 31-35 岁
[] 36-40 years 36-40 岁 [] 41-45 years 41-45 岁
[] 46-50 years 46-50 岁 [] 51 years and above 51 岁以上

3. How long have you been in the teaching profession?
你从事教育事业多久了?

[] 0-4 years 0-4 年 [] 5-10 years 5-10 年
[] 11-15 years 11-15 年 [] 16-20 years 16-20 年
[] 21 years and above 21 年以上

4. Educational level 最高学历

[] Bachelor 学士 [] Master 硕士
[] PhD 博士 [] Other 其他

5. What is your present post?
你现在的职位?

[] Assistant teacher 助教 [] Lecturer 讲师
[] Senior lecturer 高级讲师 [] Associate Professor (Reader) 副教授
[] Professor 教授 [] Other 其他

6. Department School 学院 _____

Subject area 研究领域 _____

SECTION II: 第二部分

Job Satisfaction 工作满意度

The following statements deal with different aspects of teaching as a job and intend to assess which aspects affect job satisfaction most. Please tick the box below indicating how strongly you satisfied or dissatisfied with each statement.

以下是关于教育工作的相关方面的叙述，旨在评估影响工作满意程度的主要因素。请在相应的方格内选择。

SA: Strongly Agree A: Agree U: Undecided/It depends D: Disagree SD: Strongly Disagree

非常同意 同意 不确定 不同意 非常不同意

A: Intrinsic Factors
内在因素

	SA 非常 同意	A 同 意	U 不 确 定	D 不 同 意	SD 非 常 不 同 意
1.I have a sense of pride in being a teacher 我感觉很自豪能成为一名教师					
2.As a teacher I am appreciated in society 作为教师，我受到社会的赏识					
3.As a teacher I have high social status 教师给了我很高的社会地位					
4.People show me respect 作为教师，我受到人们的尊敬					
5. All in all, I am satisfied with my level of self-esteem in my job 总体来说，工作使我的自尊心得到满足					
6. I believe I am qualified for this job 我坚信我能胜任这份工作					
7. I am fully confident in my ability to work well 我相信自己有能力把工作做好					
8. All in all, I am satisfied with my self-efficacy in the work 总体来说，我对自己在工作中所起的作用很满意？（自我效能）					
9. My work gives me a sense of personal accomplishment 教师工作给我一种自我成就感					
10. I get a sense of satisfaction when students perform well.					

当学生表现很好的时候，我有一种满足感					
11. I would like to make more effort to improve myself 我乐于努力提高自己的能力					
12. All in all, I am satisfied with my self-actualization in the work 总体来说，我满意自己在工作中能实现自我价值					
13. My work shift is highly flexible 我的工作时间很灵活					
14. The teaching content is highly flexible 教学内容具有高度灵活性					
15. The way in which I teach can be highly flexible 我在教学方法的选择上有高度的自主性					
16. I am satisfied with the bureaucracy in school (formalism) 我对学校的行政管理体系和程序比较满意					
17. All in all, I am satisfied with flexibility and autonomy in my work 总体来说，我对工作中的灵活性和自主性很满意					

B: Extrinsic Factors
外部因素

	SA	A	U	D	SD
18. I am satisfied with my working conditions 我对工作条件很满意					
19. I am satisfied with the degree of challenge I face in my work 我对工作带给我的挑战很满意					
20. I am satisfied with the responsibility I have in doing the work 我对工作带给我的责任感很满意					
21. I am satisfied with the variety of my work 我对工作的多样性很满意					
22. I am satisfied with the opportunity to utilize my ability in my work 我对工作中能充分发挥我才能的机会很满意					
23. I am satisfied with the opportunities for professional development 我对工作中的职业发展机会很满意					
24. All in all, I am satisfied with my work 总体来说，我对工作很满意					
25. I believe work relationships with colleagues is very important 我认为在工作中与同事的关系很重要					
26. I believe personal relationships with colleagues is very important 我认为与同事的私人关系也很重要					
27. I am satisfied with the team spirit among my colleagues 我对同事间的团队精神很满意					

28. My colleagues are supportive 我的同事都互相支持					
29. A harmonious atmosphere among colleagues leads to efficiency at work 融洽的同事气氛会带来工作上的高绩效					
30. We are united and get along well with each other 我们很团结，相处非常融洽					
31. All in all, I am satisfied with my work group 总的来说，我对工作团队很满意					
32. I am satisfied with the pay in relation to the amount of work I do 我对工作量与收入的关系很满意					
33. I am satisfied with the pay in relation to the post I hold 我对收入和职位的关系很满意					
34. I am satisfied with the pay in relation to the cost of living in Dalian 我对工资收入和在大连的生活费用的关系很满意					
35. Compared with others with similar qualifications who work outside the university sector, I am satisfied with the pay 与在其他行业拥有同样学历的人相比，我对收入很满意					
36. Compared with others in this university or others' holding a similar position in other universities, I am satisfied with the pay 与本大学的老师或其他大学里拥有同样职位的教师相比，我对现在的收入很满意					
37. I am satisfied with the fairness of the pay structure in the university 我对大学里的工资体系的公平性很满意					
38. All in all, I am satisfied with my pay 总体来说，我对收入很满意					
39. I am satisfied with the present promotion system in this university 我对大学里的现行晋升体系很满意					
40. The promotion system is fair for all 晋升体系对所有人都是公平的					
41. It is reasonable to scale it with the length of service and research achievement 用工作年限和科研成果来衡量晋升体系具有合理性					
42. All in all, I am satisfied with my chances for promotion? 总体来说，我对晋升的机会很满意					
43. I am satisfied with the teaching hours per week 我对每周的教学课时量满意					
44. I am satisfied with the research workload 我对科研量的要求满意					
45 It's better to allow teachers to choose teaching or research as a					

preference 如果允许教师在教学和科研中做出选择，效果会更好					
46.It's better to balance the quantity and the quality of research 同时考察科研的质与量会更好					
47. All in all, I am satisfied with teaching and research in the work? 总体来说，我对工作的任务量很满意					

SECTION III: 第三部分

The Effect of Job Satisfaction 工作满意度导致的结果

The following statements deal with the effect of job satisfaction. Please tick the box below indicating how strongly you agree or disagree with each statement.
以下是关于工作满意度导致结果的叙述，请选择合适项。

	SA	A	U	D	SD
48.I am thinking of finding a job outside the university 我考虑过在大学之外另谋职业					
49.I am thinking of finding a job in other universities 我考虑过换去其他大学工作					
50.I am thinking of changing a job for the income reason 我考虑过由于工资原因换工作					
51. I am thinking of changing a job for the stress reason 我考虑过由于压力的原因换工作					
52.I am intended to quit the job 我考虑过辞职					
53. I am thinking of an early retirement 我考虑过提前退休					
54. I have the physical problems because of the stress at work (Such as insomnia, headache, backache, neck hyperplasia, pharyngitis and laryngitis, upset stomach, blood pressure, heart disease, etc.) 工作压力给我带来很多身体问题（例如失眠，头疼，背疼，颈堆增生，咽炎，喉炎，胃疼，高血压，心脏病，等等）					
55. I have the psychological problems because of the stress at work (Such as emotion of anxiety, depression, etc.) 工作压力给我带来很多心理问题（例如忧虑的情绪，沮丧等等）					

SECTION IV: 第四部分

Other Information 其他信息

1. If you were to begin your career again, would you choose to become a teacher?
[] Yes [] No

Why?
如果让你重新选择职业，你还会选择做老师么？是 否
为什么？

2. Overall, on a scale of 1 (low) to 10 (high), how would you rate your satisfaction of being a teacher?

1	2	3	4	5	6	7	8	9	10

总的来说，如果最高分是 10 分，你对老师这个工作的满意度能打几分？

3. Which statement listed on previous pages do you think gives you the greatest job satisfaction?
总体来说，你认为上述因素中最满意的是什么？

4. Which statement listed above do you think causes you the most job dissatisfaction?
总体来说，你认为上述因素中最不满意的是什么？

5. I would be grateful that you could add other aspects which are not listed above.
如果你能补充一些尚未提及的因素，我将十分感激

Thank you for completing this questionnaire
非常感谢你的合作！

Appendix 4 – Factor Analysis

Factor Analysis

In this research, factor analysis aims to reduce data by replacing the large number of original variables with smaller number of factors. The job satisfaction part of questionnaire has 47 items related to job satisfaction. 38 items are questions to measure job satisfaction related factors. 9 items are overall questions to measure the overall satisfaction with job related factors. Factor analysis technique can group 38 separate statements into fewer categories.

Regarding sample size question, Hair *et al.* (2006) stated that the researcher would not factor analyze a sample less than 50 observations, and preferably the sample size should be 100 or larger. As a general rule, the minimum of observations to variables ratio is 5:1 and the more acceptable sample size would have a 10:1 ratio. In this study, 204 questionnaires were used for analysis which are five times of 38 variables, which mean 5:1 ratio is acceptable for factor analysis.

In addition, there's a need to specify the unit of analysis. Factor analysis in this study is intended to identify the structure of relationship and examine the correlations among a set of variables other than respondents, so R-type factor analysis not Q-type is used here. With R-type factor analysis, the researcher uses the traditional correlation matrix as input.

Criteria Used for Selecting Number of Factors

Principle components analysis, the Eigenvalues and Scree test will be used here to decide on the number of factors to extract. According to Hair *et al.* (2006), components analysis is utilized when the objective is to summarize most of the original information in a minimum number of factors for prediction purposes. The Eigenvalues criterion is the most commonly used technique. With components analysis each variable contributes a

value of 1 to the total eigenvalues, therefore only factors have eigenvalues greater than 1 are considered significant. Table 1 presented summary information of the results from extraction of component analysis and KMO test and Bartlett's tests. From Table 1, we can see nine factors are extracted from the component analysis and together explain 67.077% of variation in the data. The KMO measure of sampling adequacy is .853 and the Bartlett's Test of Sphericity is .000. Since the KMO test of .853>.70 and the significance statistic is .000 which is less than the significant level of 5 percent, it is concluded that the data are correlated and are acceptable for factor analysis.

Table 1: Summary of the results from extraction of component analysis and KMO test and Bartlett's tests

Factor	Initial Eigenvalues	% of Variance	Cumulative %
1	10.526	27.699	27.699
2	3.740	9.842	37.540
3	2.661	7.003	44.544
4	1.793	4.718	49.262
5	1.583	4.166	53.428
6	1.465	3.854	57.282
7	1.425	3.751	61.033
8	1.155	3.039	64.072
9	1.142	3.005	67.077
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			.853
Sig. of Bartlett's Test of Sphericity			.000
Approx. Chi-Square of Bartlett's Test of Sphericity			3714.280

The Scree test is derived by plotting the latent roots against the number of factors in their order of extraction, the cutoff point is evaluated by the change of the shape of the resulting curve. As we can see from Figure 1, the cutoff point in Scree Plot is nine which suggested nine factors. With the same results in both Scree test and eigenvalues criterion, nine factors were selected for analyzing job satisfaction statements. For identifying which variables most strongly correlated with each of the nine factors, factor interpretation will explain it in detail.

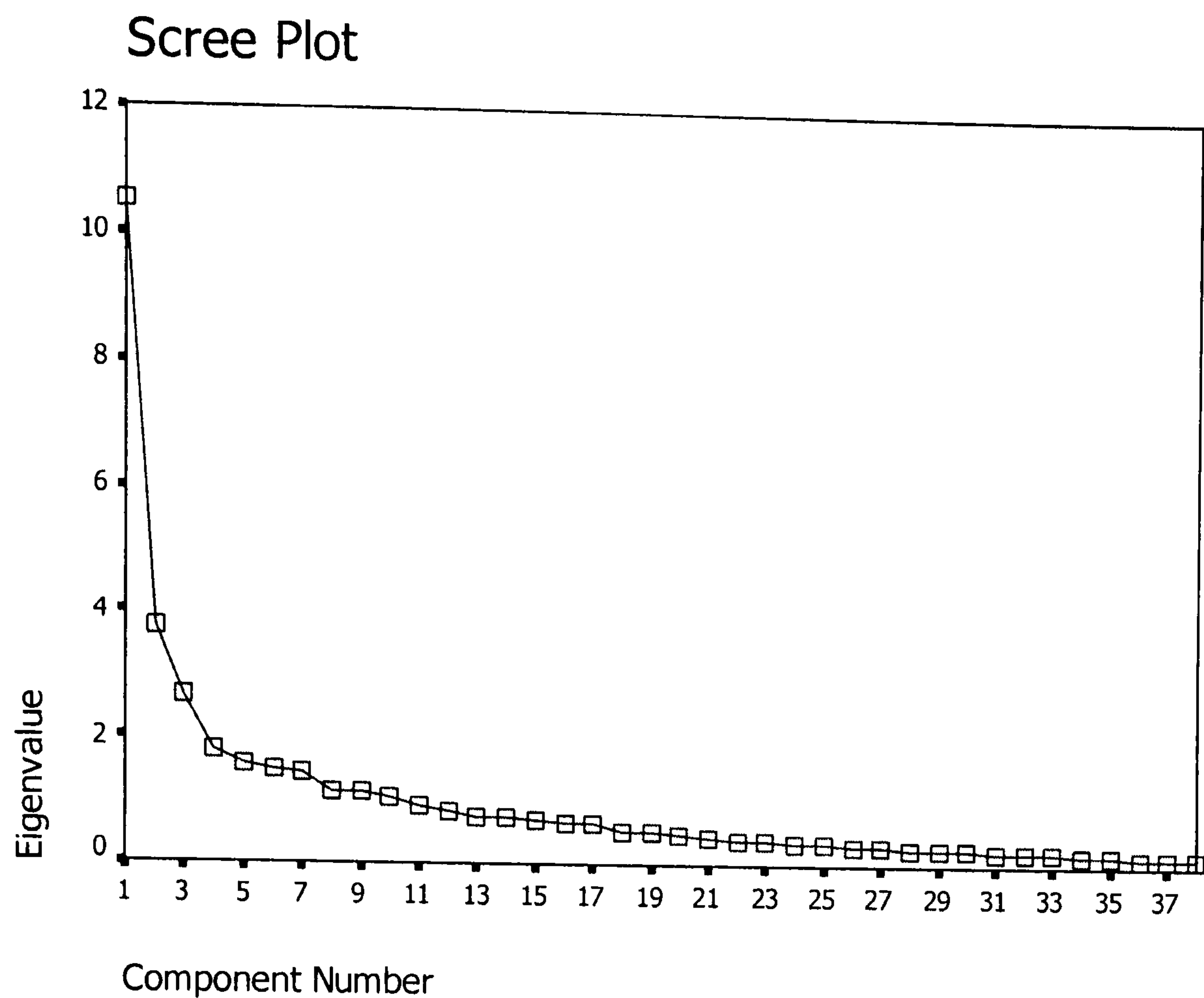


Figure 1: Scree Plot of Factor Analysis

Factor Interpretation

To interpret a factor structure and select a final factor solution, three fundamental processes need to be taken into consideration-factor rotation, factor loading and communality. Each process is briefly described and discussed in detail in the following parts.

Factor Rotation

‘Factor rotation is a process of manipulating or adjusting the factor axes to achieve a simpler and pragmatically more meaningful factor solution’ (Hair *et al.*, 2006, p.102). In most cases factor rotation can provide information to improve the factor interpretation by reducing some of the ambiguities which often go along with the initial unrotated factor solutions (Hair *et al.*, 2006). According to Bartholomew *et al.* (2002), rotation gives us alternative ways of describing the same solution rather than providing different solutions. It enables us to look at the variation from another angle and simplify the factor structure.

The most commonly used rotation methods are **Orthogonal** and **Oblique**. Orthogonal rotation is used under the assumption that there are no correlations among underlying factors. While Oblique rotation is used when there are some theoretical reasons to believe that the factors may be correlated. Varimax and Oblimin are the most widely used methods in Orthogonal and Oblique rotations respectively (Gaur and Gaur, 2006). In this study, the researcher assumed that the underlying factors are uncorrelated with each other, so Varimax rotation technique is used here.

In Orthogonal rotation, correlation between the factors is ignored, only correlation between variables and factors are calculated. Table 2 showed the results of the job satisfaction statements using Varimax as the rotation technique and principal component analysis as an extraction method. From Table 2, we can see that the original 38 variables are replaced by nine factors, so data reduction rate is 76.32 percent ($\text{Number of variables replaced} / \text{Number of original variables}$). The total variance explained by nine factors is 76.32 percent which is acceptable.

Table 5.2: Rotated Component Matrix

Variables	Factor Numbers								
	1	2	3	4	5	6	7	8	9
a sense of pride in being a teacher		.730							
appreciated in society		.828							
high social status		.804							
people show me respect		.699							
qualified for this job							.838		
confident in my ability to work well							.820		
work gives me personal accomplishment		.642							
get satisfaction when students perform well								.474	
make more effort to improve myself								.464	
work shift is highly flexible						.523			
teaching content is highly flexible						.784			
teaching method can be highly flexible						.624			
the bureaucracy in school (formalism)	.243	.359	.231	.384	.207	.229			
working conditions			.597						
the degree of challenge I face			.739						
the responsibility I have			.612						
the variety of my work			.735						
the opportunity to utilize my ability			.674						
the opportunities for professional development			.621						
work relationships with colleagues important					.819				
personal relationships with colleagues important					.761				
team spirit among my colleagues					.731				
my colleagues are supportive					.777				
harmonious atmosphere leads to efficiency					.525				
united and get along well with each other					.704				
the pay in relation to the amount of work	.790								
the pay in relation to the post	.814								
the pay in relation to the cost of living	.800								
pay compare outside university	.803								
pay compare inside university	.745								
the fairness of the pay structure	.492			.488					
the present promotion system				.704					
the fairness of promotion system				.735					
scale it with duration and research achievement				.629					
teaching hours per week									.617
research workload									.731
choose teaching or research as a preference									.655
balance the quantity and the quality of research									.767

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Factor Loading

Another aspect needs to be taken into consideration is factor loading (shown in Table 2) because it is the correlation of each variable and the factor. The higher the factor loading, the more important the factor underlies that variable. It helps in identifying which variables are correlated with the particular factor (Gaur and Gaur, 2006). Hair *et al.* (2006) considered it in two aspects: the practical significance and the statistical significance. From the practical significance aspect, they argued that factor loadings in the range of

$\pm.30$ to $\pm.40$ are considered to meet the minimal level; loadings $\pm.50$ or greater are considered practically significant; loadings exceeding $\pm.70$ are considered indicative of well-defined structure and are the goal of any factor analysis. Regarding the statistical significance, they argued that factor loadings need to be considered significant for different sample size. For example, in the sample of 100 respondents, factor loadings of .55 and above are significant. Factor loadings of .40 and above are considered significant for a sample of 200 respondents. Therefore, factor loadings of .40 and above were chosen to meet both practical and statistical significance in this study.

Communalities

Once all the significant loadings have been identified, the researchers also need to consider whether the variables meet acceptable levels of explanation (Hair *et al.*, 2006). Examining each variable's communality is the most commonly used method. The higher the value of communality for a particular variable after extraction, the higher is the amount of variance explained by the extracted factors (Gaur and Gaur, 2006). According to Hair *et al.* (2006), all variables with communalities more than .50 are considered to have sufficient explanation. Table 3 showed that no variables with communalities less than .50, which meant all variables meet the acceptable levels of explanation.

Table 3: Communalities

	Initial	Extraction
a sense of pride in being a teacher	1.000	.637
appreciated in society	1.000	.751
high social status	1.000	.742
people show me respect	1.000	.619
qualified for this job	1.000	.845
confident in my ability to work well	1.000	.813
work gives me personal accomplishment	1.000	.668
get satisfaction when students perform well	1.000	.586
make more effort to improve myself	1.000	.669
work shift is highly flexible	1.000	.577
teaching content is highly flexible	1.000	.749
teaching method can be highly flexible	1.000	.598
the bureaucracy in school (formalism)	1.000	.524
working conditions	1.000	.589
the degree of challenge I face	1.000	.702
the responsibility I have	1.000	.682
the variety of my work	1.000	.643
the opportunity to utilize my ability	1.000	.617
the opportunities for professional development	1.000	.624
work relationships with colleagues important	1.000	.732
personal relationships with colleagues important	1.000	.651
team spirit among my colleagues	1.000	.711
my colleagues are supportive	1.000	.711
harmonious atmosphere leads to efficiency	1.000	.564
united and get along well with each other	1.000	.680
the pay in relation to the amount of work	1.000	.772
the pay in relation to the post	1.000	.764
the pay in relation to the cost of living	1.000	.747
pay compare outside university	1.000	.745
pay compare inside university	1.000	.676
the fairness of the pay structure	1.000	.614
the present promotion system	1.000	.726
the fairness of promotion system	1.000	.737
scale it with duration and research achievement	1.000	.596
teaching hours per week	1.000	.550
research workload	1.000	.681
choose teaching or research as a preference	1.000	.517
balance the quantity and the quality of research	1.000	.678

Extraction Method: Principal Component Analysis

Factor Structure

Once all the factor loadings have been identified in the rotated matrix and the communalities examined above, the researcher found that ‘the bureaucracy in school (formalism)’ variable had no significant loadings on any factors, and variable ‘the fairness of the pay structure’ had a cross-loading both on factor one and four. To solve these problems, Hair *et al.* (2006, p. 131) suggested some remedies:

- ✧ Ignore those problematic variables
- ✧ Evaluate each of these variable for possible deletion

- ✧ Employ an alternative rotation method
- ✧ Decrease/increase the number of factors retained
- ✧ Modify the type of factor model used

‘No matter which of these options are chosen by the researcher, the ultimate objective should always be to obtain a factor structure with both empirical and conceptual support’ (Hair *et al.*, 2006, p. 131). Considering the above suggestions, the researcher decided to ignore the variable ‘the bureaucracy in school (formalism)’ for no significant loading, and keep the variable ‘the fairness of the pay structure’ in the higher loading factor.

With the above factor solution, the researcher assigned some meaning to the pattern of factor loadings. Variables with higher loadings are considered more important and have greater influence on the selected factors. Therefore, the researcher examined the significant variables for the particular factor and labeled each factor based on its appropriateness for representing the related variables. The results are presented in the following table.

Table 4: Factor interpretation

Factor 1: Satisfied with pay	<i>I am satisfied with the pay in relation to the amount of work I do</i> <i>I am satisfied with the pay in relation to the post I hold</i> <i>I am satisfied with the pay in relation to the cost of living in Dalian</i> <i>Compared with others with similar qualifications who work outside the university sector, I am satisfied with the pay</i> <i>Compared with others in this university or others' holding a similar position in other universities, I am satisfied with the pay</i> <i>I am satisfied with the fairness of the pay structure in the university</i>
Factor 2: Satisfied with self-esteem	<i>I have a sense of pride in being a teacher</i> <i>As a teacher I am appreciated in society</i> <i>As a teacher I have high social status</i> <i>People show me respect</i> <i>My work gives me a sense of personal accomplishment</i>
Factor 3: Satisfied with work itself	<i>I am satisfied with my working conditions</i> <i>I am satisfied with the degree of challenge I face in my work</i> <i>I am satisfied with the responsibility I have in doing the work</i> <i>I am satisfied with the variety of my work</i> <i>I am satisfied with the opportunity to utilize my ability in my work</i> <i>I am satisfied with the opportunities for professional development</i>
Factor 4: Satisfied with promotion	<i>I am satisfied with the present promotion system in this university</i> <i>The promotion system is fair for all</i> <i>It is reasonable to scale it with the length of service and research achievement</i>
Factor 5: Satisfied with work group	<i>I believe work relationships with colleagues is very important</i> <i>I believe personal relationships with colleagues is very important</i> <i>I am satisfied with the team spirit among my colleagues</i> <i>My colleagues are supportive</i> <i>A harmonious atmosphere among colleagues leads to efficiency at work</i> <i>We are united and get along well with each other</i>
Factor 6: Satisfied with flexibility and autonomy	<i>My work shift is highly flexible</i> <i>The teaching content is highly flexible</i> <i>The way in which I teach can be highly flexible</i>
Factor 7: Satisfied with self-efficacy	<i>I believe I am qualified for this job</i> <i>I am fully confident in my ability to work well</i>
Factor 8: Satisfied with self-actualization	<i>I get a sense of satisfaction when students perform well.</i> <i>I would like to make more effort to improve myself</i>
Factor 9: Satisfied with teaching and research	<i>I am satisfied with the teaching hours per week</i> <i>I am satisfied with the research workload</i> <i>It's better to allow teachers to choose teaching or research as a preference</i> <i>It's better to balance the quantity and the quality of research</i>

Reliability Analysis

Table 5 presented cronbach’s alpha coefficients for each factor extracted by factor analysis, and for all the variables loaded to a factor. The higher the score implied the more reliability in the measurement scale. Nunnally (1978) suggested that a reliability score of .80 is desirable. However, in exploratory work, .60 is often reasonable. From Table 5, we can see that all the reliability coefficients are over .60, which means that they are acceptable. The results indicated that the measurement scales are reliable, and provided support for the statistical analysis.

Table 5: The results of the reliability test

Factors	Cronbach's Alpha
Factor 1	.9267
Factor 2	.8834
Factor 3	.8677
Factor 4	.8791
Factor 5	.8231
Factor 6	.7523
Factor 7	.7682
Factor 8	.6392
Factor 9	.7074
All variables loaded to a factor	.9259

Appendix 5 – Responses in Relation to Self-esteem

Perspectives on self-esteem	
Responses with negative attitude	T8: (Do you feel that your work supports a sense of self-esteem and the work you do is appreciated in society?) "I did not feel like that."
Responses with neutral attitudes	T2: (Do you feel that your work supports a sense of self-esteem?) "I am fairly satisfied, but I don't think there is a strong sense of proud to be a university teacher. In my opinion, the income is not in proportion to the work we done." (How about the social status?) "It depends on the standard by which we use to judge it. Maybe someone may think that we have a high social status, but most of us don't think so, including me. It's just ok." T4: (Do you think your job is appreciated in society?) "It's ok, and actually, better than previous time. In recent years, the social statuses of university teachers have improved a lot." "I don't feel too much sense of self-esteem, just ok. I think my teaching area has a strong link with social activities, so I always have the chance to contact with people in government or business circle, the work I do is appreciated in society. If I only do teaching and research work at school, the appreciation may not be so high. In addition, I always work on some cooperative projects with the people in government; my ability is recognized by them."
Reponses with positive attitudes	T1: (Do you feel that your work supports a sense of self-esteem?) "Yes, I think so; it's quite different from several years ago. Only in recent years, I could feel this kind of self-esteem." T3: "Um, I can feel that university teachers are appreciated in society. When I said I am a university teacher, they show me a kind of respect." "This work wins high social recognition." "University teachers are appreciated and respected in the society, in fact it's difficult to find a good job like this." T5: "I do feel that university teacher has a higher social status and it brings me a sense of self-esteem. I am fully confident in my professional moral. Although the social moral is weakened in the society nowadays, I still keep the sense. Anyway, I am still proud of being a teacher." T6: "I can enjoy a sense of self-esteem, for I like teaching very much." "It is just Ok to work as a teacher in China now. The social status and income is on a fairly decent level." T7: "I haven't got a sense of self-esteem for myself, but I can feel a sense of proud when talking about my students." "When I attend some conferences, I don't think I am appreciated, but teachers are really respected. It's much better than the elder generation. The social status of university teacher turns better with the passage of time." T9: "I feel good in recent years. Nowadays, our country has paid more attention to teachers and education. Whether there is a sense of self-esteem or not depends on one's own ability and other people's view. You love your students from the bottom of your heart, as a trade back your students will respect you in return. I think I am recognized in the society and I can feel a sense of self-esteem." T10: "It's not bad (self-esteem). I think we are recognized. "I can feel it, it is appreciated in society." T11: "Working as a teacher involves flexibility, stability, and high social position, which quite suit me."(Do you feel that your work supports a sense of self-esteem?) "Of course, especially when I was respected by my students and when they told me they had made improvement in my class." T12: "I believe the job I do is appreciated in society. When I revisited my former school, my colleagues took me as a university professor respectfully." T13: "I can feel a sense of self-esteem. University teachers are respected in society." T14: "The longer I worked, the higher position I got, and the stronger sense of self-esteem I perceived. With the passage of time, this kind of feeling impressed on my mind even deeper." "The main satisfiers are ... a sense of self-esteem from the work itself..."

Appendix 6 – Percentage of All Job Satisfaction Factors

Table: Percentage of all job satisfaction factors

	Satisfied	Undecided	Dissatisfied
1.I have a sense of pride in being a teacher	89.7	8.3	2.0
2.As a teacher I am appreciated in society	74.0	22.1	3.9
3.As a teacher I have high social status	58.3	32.4	9.4
4.People show me respect	80.2	16.8	3.0
9. My work gives me a sense of personal accomplishment	66.7	28.9	4.4
5. All in all, I am satisfied with my level of self-esteem in my job	75.6	17.4	7.0
6. I believe I am qualified for this job	93.1	6.4	0.5
7. I am fully confident in my ability to work well	98.0	2.0	0.0
8. All in all, I am satisfied with my self-efficacy in the work	83.7	14.4	2.0
10. I get a sense of satisfaction when students perform well.	93.6	4.4	2.0
11. I would like to make more effort to improve myself	98.5	1.5	0.0
12. All in all, I am satisfied with my self-actualization in the work	75.0	22.5	2.5
13.My work shift is highly flexible	59.8	20.6	19.6
14.The teaching content is highly flexible	51.5	32.2	16.4
15.The way in which I teach can be highly flexible	60.2	26.9	13.0
17. All in all, I am satisfied with flexibility and autonomy in my work	58.4	29.2	12.4
18.I am satisfied with my working conditions	53.5	28.7	17.9
19.I am satisfied with the degree of challenge I face in my work	63.7	28.9	7.4
20.I am satisfied with the responsibility I have in doing the work	72.9	20.2	6.9
21.I am satisfied with the variety of my work	53.9	29.9	16.2
22.I am satisfied with the opportunity to utilize my ability in my work	62.7	27.5	9.8
23. I am satisfied with the opportunities for professional development	47.5	34.8	17.7
24. All in all, I am satisfied with my work	75.0	17.6	7.4
25.I believe work relationships with colleagues is very important	93.6	5.4	1.0
26.I believe personal relationships with colleagues is very important	83.7	13.3	3.0
27.I am satisfied with the team spirit among my colleagues	73.9	19.7	6.4
28.My colleagues are supportive	76.0	18.6	5.4
29.A harmonious atmosphere among colleagues leads to efficiency at work	95.1	3.4	1.5
30.We are united and get along well with each other	80.9	14.7	4.4
31. All in all, I am satisfied with my work group	78.3	15.3	6.4
32.I am satisfied with the pay in relation to the amount of work I do	26.5	36.8	36.7
33.I am satisfied with the pay in relation to the post I hold	31.9	33.3	34.8
34.I am satisfied with the pay in relation to the cost of living in this city	15.2	29.9	54.9
35.Compared with others with similar qualifications who work outside the university sector, I am satisfied with the pay	21.2	27.1	51.4
36.Compared with others in this university or others' holding a similar position in other universities, I am satisfied with the pay	25.2	36.6	38.1
37. I am satisfied with the fairness of the pay structure in the university	25.5	36.3	38.3
38. All in all, I am satisfied with my pay	26.0	33.3	40.7
39. I am satisfied with the present promotion system in this university	25.0	37.3	37.7
40. The promotion system is fair for all	17.9	43.3	38.8
41. It is reasonable to scale it with the length of service and research achievement	41.2	31.9	27.0
42. All in all, I am satisfied with my chances for promotion	28.1	39.4	32.5
43. I am satisfied with the teaching hours per week	53.0	26.2	20.8
44. I am satisfied with the research workload	42.8	30.8	26.4
45 It's better to allow teachers to choose teaching or research as a preference	72.4	20.2	7.4
46.It's better to balance the quantity and the quality of research	77.1	18.4	4.5
49. All in all, I am satisfied with teaching and research in the work?	57.4	27.0	15.7

Appendix 7 – Job Satisfaction and Dissatisfaction Division

Table: Job satisfaction and dissatisfaction division

	Satisfied Factors	Dissatisfied Factors
Satisfied with self-esteem	1.I have a sense of pride in being a teacher 2.As a teacher I am appreciated in society 3.As a teacher I have high social status 4.People show me respect 9. My work gives me a sense of personal accomplishment	
Satisfied with self-efficacy	6. I believe I am qualified for this job 7. I am fully confident in my ability to work well	
Satisfied with self-acualization	10. I get a sense of satisfaction when students perform well. 11. I would like to make more effort to improve myself	
Satisfied with flexibility and autonomy	13.My work shift is highly flexible 14.The teaching content is highly flexible 15.The way in which I teach can be highly flexible	
Satisfied with work itself	18.I am satisfied with my working conditions 19.I am satisfied with the degree of challenge I face in my work 20.I am satisfied with the responsibility I have in doing the work 21.I am satisfied with the variety of my work 22.I am satisfied with the opportunity to utilize my ability in my work 23. I am satisfied with the opportunities for professional development	
Satisfied with work group	25.I believe work relationships with colleagues is very important 26.I believe personal relationships with colleagues is very important 27.I am satisfied with the team spirit among my colleagues 28.My colleagues are supportive 29.A harmonious atmosphere among colleagues leads to efficiency at work 30.We are united and get along well with each other	
Satisfied with pay		32.I am satisfied with the pay in relation to the amount of work I do 33.I am satisfied with the pay in relation to the post I hold 34.I am satisfied with the pay in relation to the cost of living in this city 35.Compared with others with similar qualifications who work outside the university sector, I am satisfied with the pay 36.Compared with others in this university or others' holding a similar position in other universities, I am satisfied with the pay 37. I am satisfied with the fairness of the pay structure in the university
Satisfied with promotion	41. It is reasonable to scale it with the length of service and research achievement	39. I am satisfied with the present promotion system in this university 40. The promotion system is fair for all
Satisfied with teaching and research	43. I am satisfied with the teaching hours per week 44. I am satisfied with the research workload 45 It's better to allow teachers to choose teaching or research as a preference 46.It's better to balance the quantity and the quality of research	